HURRO-URARTIAN AS AN EASTERN CAUCASIAN LANGUAGE

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Abbreviations

AA	-	Abkhazo-Adyghian language family
Abkh	-	Abkhazian, AA
Ag	-	Agul, Eastern Lezghian, Eastern EC
Akh	-	Akhwakh, Middle Cezian, Central EC
Akkad	-	Akkadian
And	-	Andian language group, Central EC
Andi	-	Andian proper, Central EC
Arč	-	Arči, Eastern EC
Arm	-	Armenian
Aw	-	Awarian, Eastern Central EC
AwAnd	-	Awaro-Andian language subbranch, Central EC
AwAndCz	-	Awaro-Ando-Cezian = Central EC
B	-	Babylonian orthography of Hurrian
Bcb	-	Bacbian, Nakh EC
Bd	-	Budukh, Southern Lezghian EC
Bg-Ug	-	Boğazköy and Ugaritic orthographies of Hurrian
Bgw	-	Bagwali, Southern Central EC
Btl	-	Botlikh, Northwestern Central EC
Bžt	-	Bežta, Eastern Cezian, Central EC
Čeč	-	Čečen, Nakh EC
Central EC	-	Central (Awaro-Ando-Cezian) language branch, EC
Cezi	-	Cezian proper, Cezian language subbranch, Central EC
Ckh	-	Cakhur, Western Lezghian, Eastern EC
Čml	-	Čamalal, Southern Central EC
Cz	-	Cezian language subbranch, Central EC
Drg	-	Dargwa, EC
EC	-	Eastern Caucasian (Alarodian, Northeastern Caucasian) language family
Gdb	-	Godoberi, Northwestern Central EC
Gnkh	-	Ginukh, Southwestern Cezian, Central EC
Gnz	-	Gunzib, Eastern Cezian, Central EC
H	-	Hurrian, Hurro-Urartian language branch, EC

HdO	-	Handbuch der Orientalistik
Hitt	-	Hittite
HU	-	Hurro-Urartian language branch, EC
Ing	-	Ingush, Nakh EC
Inkh	-	Inkhoqwari, Northwestern Cezian, Central EC
Khn	-	Khinalugian, EC
Khš	-	Khwarši, Northwestern Cezian, Central EC
Krt	-	Karata, Northeastern Central EC
Krz	-	Kryz, Southern Lezghian, Eastern EC
L	-	Lezghian language subbranch, Eastern EC
Lk	-	Laki, EC
Lz	-	Lezghian proper, Eastern Lezghian EC
M	-	Mitannian orthography of Hurrian
N	-	Nakh language branch, EC
Nik II	-	Nikolsky M.V. Dokumenty khozjajsvennoj otčetnosti drevnej Khaldei, St.Petersburg, 1915
P-	-	Proto-
PAA	-	Proto-Abkhazo-Adyghian
PAnd	-	Proto-Andian
PC	-	Proto-(East- and West-)Caucasian
PEC	-	Proto-East Caucasian
PHU	-	Proto-Hurro-Urartian
PL	-	Proto-Lezghian
PN	-	Proto-Nakh
RS	-	Ras Šamra (Ugaritic) quasi-alphabetic orthography of Hurrian
Rut	-	Rutul, Western Lezghian, Eastern EC
Sub	-	Subarean (Hurrian gloss in Akkadian lexical text)
Sum	-	Sumerian
Tb	-	Tabasaran, Eastern Lezghian, Eastern EC
TCL	-	Textes cunéiformes du Louvre
Tnd	-	Tindi, Eastern Central EC
U	-	Urartian, Hurro-Urartian language branch, EC
Udi	-	Udi, Southern Lezghian, Eastern EC
VDI	-	Vestnik drevnej istorii

I. Introduction

In our preceding publications[1] we had already noted the probability of Hurro-Urartian belonging to the North Caucasian linguistic phylum. This hypothesis can now be verified. S.A. STAROSTIN and S.L. NIKOLAEV have reconstructed the Common North Caucasian, as well as the Common North Eastern Caucasian vocabulary and phonological system, and with the help of their files it is now possible to etymologize nearly 40 percent of the Urartian and about 30 percent of the Hurrian words which have been more or less reliably interpreted. It appears that Hurro-Urartian fits into North Eastern Caucasian as one of its branches.

It has now become evident that the North Caucasian phylum (which it is better to term simply "Caucasian") consists of two families which we shall denote as "Western", or "Abkhazo-Adyghian" (AA) and "Eastern" (EC)[2], instead of using the traditional terms "Northwestern Caucasian" and "Northeastern Caucasian". It appears that the Kartvelian (Ibero-Caucasian, South Caucasian) linguistic family does not belong to the phylum in question, and the rather numerous coincidences in vocabulary must be due to a substratum influence of Caucasian

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1) I.M. D'JAKONOV, Jazyki drevnej Perednej Azii, Moscow, 1967, p.165; I.M. DIAKONOFF, Hurrisch und Urartäisch, München, 1971 (MSS, Beiheft 6), p.157-171; I.M. D'JAKONOV, in: Jazyki Azii i Afriki, III, Moscow, 1979, p.52-53; I.M. D'JAKONOV, Khurrito-urartskij i vostočno-kavkazskie jazyki, 'Hin Arevelkʿ - Drevnij Vostok', III, Erevan, 1978, p.25-38.

2) Note that PC, PEC, PAA, PL, PN etc. stand for 'Proto-Caucasian', 'Proto-East-Caucasian', 'Proto-Abkhazo-Adyghian', 'Proto-Lezghian', 'Proto-Nakh' etc.

proper[3].

Western Caucasian (AA, Abkhazo-Adyghian) includes the languages Adygh, Kabardian, Ubykh, Abaza and Abkhazian, and apparently also Hattic[4].

Eastern Caucasian (EC) consists of four or five branches:

(1) The Eastern, or Darghi-Lezghian branch is divided into two or three sub-branches, and is spoken in Central and Southern Daghestan, and partly also in Azerbaijan:

(1A) Lezghian (L), which is subdivided into five groups:

3) The root-structure and Ablaut system of Proto-Kartvelian are strikingly alike to Proto-Indo-European; there is a number of lexical isoglosses. Cf. T.V. GAMKRELIDZE, G.I. MAČAVARIANI, 'The system of sonants and the Ablaut in Kartvelian languages', Tbilisi, 1965 (in Georgian with extensive English summary). On the theory of Kartvelian and Indo-European belonging, together with some other linguistic families of the Old World, to the 'Nostratic' superfamily (which, however, does not include Caucasian), see V.M. ILLIČ-SVITYČ, Opyt sravnenija nostratičeskikh jazykov, Moscow, 1971 (vol.1), 1976 (vol.2). On a possible relationship between Proto-Indo-European and Proto-Kartvelian see also I.M. D'JAKONOV, O prarodine nositelej i.-e. dialektov, VDI, 1982, N°3, p.18 sqq.

4) This had been surmised already by E. FORRER; after the unlucky and methodically unsound attempts by P. MESZAROS the idea had been for a long time discredited. The typological similarity between Hattic and Abkhazo-Adyghian was then shown by I.M. DUNAJEVSKAJA (Principy struktury khattskogo (protokhettskogo) glagola, in Peredneaziatskij sbornik, I, Moscow 1961, p.134 ff.; O strukturnom skhodstve khattskogo jazyka s jazykami severo-zapadnogo Kavkaza, in: Issledovanija po istorii kultury narodov Vostoka (Festschrift I.A.Orbeli), Moscow-Leningrad, 1960, p.73-77), V.G. ARDZINBA (Nekotorye skhodnye strukturnye priznaki khattskogo i abkhazo-adygskikh jazykov, Peredneaziatskij sbornik III, Moscow 1979, p.26-37), and by I.M.DIAKONOFF, in: Jazyki Azii i Afriki, III, p.79-83. Lately Vyačeslav Vs. IVANOV has shown the affinity of Hattic to AA in morphology and in the vocabulary (in print).

a) Eastern Lezghian: Lezghi (Lz)[5], Tabasaran (Tb) and Agul (Ag);

b) Western Lezghian: Rutul (Rt) and Cakhur (Ckh);

c) Southern Lezghian, or Shahdagh: Kryz (Krz) and Budukh (Bd);

d) Arči (Arč);

e) Udi (Udi); the extinct Alban (Aghwan)[6] language(s) probably belonged to the same group;

(1B) Darghian (Drg) which includes Dargwa with several dialects;

(1C) Khinalugian (Khn) in Southwestern Daghestan may either belong to the Eastern branch as a sub-branch or constitute an entirely separate branch.

(2) The Laki language (Lk) which is spoken in central Daghestan, may be a separate branch of EC, or a third sub-branch of the Central branch. It has also certain affinities with Drg in the Eastern branch which however must be due to their close geographic neighbourhood.

(3) The Central, or Awaro-Ando-Cezian branch is divided into two sub-branches (if we do not include here the Laki language), and is spoken in the northernmost part of the Caucasian-speaking area in Daghestan[7]:

5) Practically all the modern EC languages are divided into dialects, sometimes much differing one from another; this is not specially noted below.

6) On Aghwan see G. DUMÉZIL, Une chrétienté disparue: les Albaniens du Caucase, "Mélanges Asiatiques", vol.232, fasc.1, Paris, 1940-1941, p.125-132; A.G. ŠANIDZE, Jazyk i pis'mo kavkazskikh albancev, Vestnik otdeleniya obshchestvennykh nauk AN Gruz. SSR, t.1, Tbilisi, 1960, p.175-186.

7) Partly inside but mainly north of the area where languages of the Central branch of EC are spoken, but still in Daghestan, is situated the area of the Turkic languages Qumyq, Nogai, Balkar etc. The EC area is separated from the AA area by the Iranian Ossetians.

(3A) Awaro-Andian which is subdivided into two groups:

a) Andian (And) which further breaks into five smaller subgroups: Andian proper (Andi) or Western Central; Northwestern Central with Botlikh (Btl) and Godoberi (Gdb); Northeastern Central with Karata (Krt); Middle Central with Akhwakh (Akhw); Southern Central with Bagwali (Bgw), Tindi (Tnd) and Čamalal (Čml);

b) Awarian (Aw) or Eastern Central.

(3B) Cezian (Cz) which is subdivided into two groups:

a) Western Cezian with the South-Western subgroup including Cezian proper (Cezi) and Ginukh (Gnkh), and the North-Western subgroup including Khwarši (Khš) and Inkhoqwari (Inkh);

b) Eastern Cezian with Bežta (Bžt) and Gunzib (Gnz).

(4) The Western, or Nakh branch (N) is spoken in the Čečen-Inguš Republic west of the area of Central EC, partly in northern Georgia and marginally in Daghestan. It consists of three languages: Bacbian, Čečen, and Inguš.

(5) Hurro-Urartian (HU), as we shall attempt to show, constitutes yet another branch of EC. It has more than a hundred of lexical isoglosses with Central EC and nearly as many with Eastern EC, somewhat less with N, but isoglosses comprising only N and HU, both in vocabulary and phonetical development, are conspicuous. Those lexical isoglosses which HU has in common with Laki are all shared also with Eastern EC (mostly Lezghian). The greatest number of grammatical isoglosses is between HU and Central EC. HU also has important features not shared with any modern Caucasian languages (see a short survey below); whether these discrepancies are diachronic only, or genetic, remains to be investigated. However, HU certainly does

not belong to AA[8], nor is it a third family of the Caucasian phylum on a par with AA and EC, but belongs to the EC family.

Besides the two languages Hurrian (H), with several dialects[9], and Urartian (U), the HU branch possibly included also other languages in Asia Minor (as substratum of Luwian etc.) and probably in the islands of Cyprus, Lemnos etc. There is a great typological similarity between Etruscan and HU, but no lexical isoglosses could so far be established.

Another ancient language of the EC family seems to have been the Qutian ("Qutium"). It is known practically only from a few dozens of proper names[10], but there are also borrowings in Sumerian[11] which can be traced to an EC language different from Hurrian (alongside of the borrowings traceable to the so-called "Banana" substratum[12] and Ancient Semitic). It is a

8) Only a very few isoglosses connecting HU and AA can be attested (see p.97). The structural and morphological differences of HU and AA are so great, that a direct comparison is quite impossible. The same is true of comparing AA with any one of the branches of EC; a useful comparison is possible only on the PAA and PEC level.

9) Cf. M.L. KHAČIKYAN, Dialects in Hurrian, Hin-Arevelk'-Drevnij Vostok, III, Erevan, 39-46, 260.

10) In the Sumerian King List (the Dynasty of Qutium) - see Th. JACOBSEN, The Sumerian King List, Chicago, AS IX, 1939; and in two lists of women POW's, H. GÉNOUILLAC, Textes économiques d'Oumma (TCL V), P., 1922, Nº 6039; Nik.II, Nº 329, translated and discussed by V.V. STRUVE, who, however, erroneously thought the names were Hurrian; perhaps also in other OAkk and Ur III texts.

11) Borrowed words in Sumerian, if they have more than one syllable, can easily be sorted out, since the vowels in the stem are not harmonized, as e.g. in a n š e, b a n š u r, ḫ a š ḫ u r, a p i n.

12) On the 'Banana' substratum see A. FALKENSTEIN, Das Sumerische, HdO I, 1-2, Lief.1, Leiden 1959; and A. SALONEN, Zum Aufbau der Substrate im Sumerischen, Helsinki 1968. The latter author is, however, over-optimistic in trying to discover substratum words in Sumerian.

safe guess that these are borrowings from Qutian; the latter may have been rather close to L - there has even been made a suggestion that the name Udi is a reflex of *q̇ut·-ī. The suggestion may be correct, since PEC *q̇ > Udi zero, PEC *t· > Udi d[13].

Common EC possessed the following phonological system (column I includes unvoiced, phonetically aspirated phonemes, column II - intensive, phonetically unaspirated phonemes (spelled in Hurrian as reduplicated), column III - abruptive, or glottalized ("emphatic"), column IV - voiced, column V - liquid, column VI - nasal):

	Consonants				Sonants	
	I	II	III	IV	V	VI
Labial stops:	p	p·	ṗ	b	-	m
Labial fricatives:	f	f·	-	-	w, w_1[14]	-
Dental stops:	t	t·	ṭ	d	r, j	n
Dental fricatives:	s	s·	-	z	-	-
Dental affricates:	c	c·	ċ	ʒ	-	-
Dental palatalized fricatives:	ś	ś·	-	ź	-	-
Dental palatalized affricates:	ć	ć·	ċ	ʒ́	-	-
Dental bifocal fricatives:	š	š·	-	ž	-	-
Dental bifocal affricates:	č	č·	ċ	ǯ	-	-
Lateral fricatives:	ŝ	ŝ·	-	ẑ	l, l_1[14]	

13) We hope to show elsewhere that Sum. -d- < *-t-, while Sum. -t- < *-t·-.

14) The difference between *w and *w_1, *l and *l_1 in PEC is not yet clear from the phonetic point of view (*w_1 and *l_1 are uniformly reflected as w, l, while *w and *l reveal a vacillation w/b and l/r respectively).

	I	II	III	IV	V	VI
Lateral affricates:	ĉ	ĉ·	ċ	ʒ̂	-	-
Velar stops:	k	k·	ṭ	g	-	-
Velar fricatives:	x	x·	-	ḡ	-	-
Uvular stops (= affricates:	q	q·	q̇	9	-	-
Uvular fricatives:	ḫ	ḫ·	-	ɣ	-	-
Uvular pharyngealized stops (= affricates):	qI	qI·	q̇I	9I	-	-
Uvular pharyngealized fricatives:	ḫI	ḫI·	-	ɣI	-	-
Pharyngeal stop:	-	-	-	7	-	-
Pharyngeal fricatives:	ḥ	-	-	ʕ	-	-
Glottal stop:	-	ʾ	-	-	-	-
Aspiration:	h	-	-	-	-	-

All consonants appear either in a simple or labialized form; labialized consonants may be regarded as clusters with the sonant -w-. All affricates appear either as simple or reduplicated; it is also possible to view the latter as clusters of two identical phonemes, or as clusters of a fricative and an affricate. One more thing should be noted: all pharyngeals and laryngeals show two sets of correspondences in the EC languages, of which one is correlated with the Awarian mobile and oxytone accent paradigms, while the other appears only in words where Awarian has a barytone paradigm. We mark phonemes of the latter set as pharyngealized (ʾI, ḥI, 7I etc.) though they were probably distinguished not by pharyngealization but by some other suprasegmental feature.

Vowels

	Front	Middle	Back
High	i, ü	ɣ	u
Middle	e	ə	o
Low	ä		a

The vowels were all either long or short.

In order to judge of the HU-EC correspondences, it is useful to get a general idea of the typological characteristics of EC.

The usual structure of the EC root is *CV(S)CV[15] (labialized and reduplicated phonemes are regarded as single phonemes). The root-structure CV is typical only of pronominal and auxiliary morphemes. However, certain elements appearing in several branches of EC and therefore included in the reconstructed PEC root, must have originally been either word-formational morphs of models no longer productive already on the Common EC level or shortly after, or else a result of word-compounding. These elements may be either prefixed or, more commonly, suffixed. This should account for a number of PEC "trisyllabic" roots.

15) Common AA has lost all Common Caucasian sonants (in most positions), and all the Common Caucasian pharyngeal and laryngeal phonemes; thus most of the roots appear here in the unrecognizable form of *CV, and also the predicative marker *'V- is absent.

A very frequent structure in EC is CVSV. When a predicative prefix is added it becomes *'V-CVSV, often contracted to *'V-CSV; since consonantal clusters of the type -CS- are avoided in EC, this structure normally changes to *'V-SCV through metathesis. This will be seen below exemplified by many adjectival and verbal roots.

The EC verbal roots have certain peculiarities. Most of the verbal and many adjectival roots begin in PEC with an element *'V- which does not seem to affect the semantic of the verb, and was perhaps a predicative marker (in case the gender marks are prefixed to the root, the glottal stop vanishes completely; morphonologically such roots may thus be regarded as having a vowel Anlaut). In a few cases this initial consonant is a genuine constituent part of the root, but in most cases it is purely prothetic. Therefore such roots as, e.g., *'iʒ̂ʒ̂V-, *'ima-, *'əhwVr- should be treated as *-ʒ̂ʒ̂V-, *-ma(n)-, *-hwVr- etc., while nevertheless in *'ançV-, *'irɡɡwVr- *'a- and *'i- belong to the root.

EC has, with very few exceptions, no verbal roots including more than one tense consonant (non-sonorant, non-pharyngeal and non-laryngeal). However, both N and HU do have a number of such verbal roots. Obviously, they cannot be postulated to be Common EC; whether Common EC had lost such roots, or they are a later formation (and in that case, formed from two morphs?), cannot at present be established. For all practical purposes, they must be regarded as either Common N + HU, or as N (resp. HU) innovations.

Since PEC had a great number of phonemes, the quality of the phonemes in the root carried such an amount of information on semantic distinction, that the order of phonemes was comparatively less relevant in that respect than was the case for most other languages; hence the frequent metatheses, often in one and the same living dialect[15a]. A few metatheses can be attested also in HU, but generally it preserves the older order of phonemes.

15a) Cf., e.g., cases like Tnd ṭuḳa ~ ḳuta "he-goat" - forms which are freely interchangeable in speech.

HU has no roots beginning in *r-. In this it resembles such EC languages as Dargwa, Laki and N (where PEC *r- > d-). On the development of PEC *r in HU see below.

There are different (mostly, but not always, innovative) Ablaut phenomena in most modern EC languages, but there are no certain traces of Ablaut in HU. Cf. Addendum 1.

PEC was probably a tonal language, but the Caucasian tones have not yet been sufficiently investigated.

The Caucasian linguistic phylum seems to have had four genders of the noun (so-called nominal classes), more often reflected in the verb and the adjective than in the noun (though the AA and Hattic evidence may point to an earlier stage with gender prefixation in the noun as well). HU preserves no genders at all; this must be an innovation similar to what happened in Lezghian languages like Udi, Lezghi proper, and especially Agul, which has lost nearly all traces of gender prefixation.

Except gender prefixes (which are *w-, *r-, *w_1- and *j-) and the supposedly predicative marker *'V-, Common EC probably had no prefixation, though later various prefixes were developed independently in different branches of EC. On the other hand, suffixation was typical both of the verbal and the nominal system of PEC. This is also the case with HU: having lost the only prefixes which probably were original, viz. gender prefixes, it has preserved an abundant system of suffixes. Cf. Addendum 2.

All the modern EC languages have very developed modal and temporal systems in the verb, but the PEC system must have been based rather on the opposition of aspects. The verbal system in HU, although complicated, is primitive in that only aspects, but not tenses are expressed, and hence archaic;

among the EC languages the Andian are the closest to HU in their verbal system.

All the EC languages have a fientive-ergative typology, i.e. they are based upon the opposition "action : state", or "(transitive action : intransitive action) : state", or "transitive action : (intransitive action + state)". This means that the subject of transitive action is expressed by a special ergative or another oblique case, while the subject of intransitive action and/or state is expressed by an "absolute" (usually zero) case; the direct object is regarded as the subject of the state resulting from the transitive action and thus is likewise expressed by the absolute case. There are certain modifications of this basical law, e.g. the verbs of motion may be regarded as transitive, or the subject of the verbs of emotion may have another oblique case for their subject than that of transitive verbs proper, or the medial or reflexive action may have a special form and structure etc. This situation obtains also in HU.

There is a common stock of pronominal, word-formational and inflectional morphs in all EC languages (including HU, as will be shown below), although there is also much divergence.

The system of phonemes is in Urartian and especially in Hurrian much poorer than in PEC. In the tables below we place the reconstructed phonemes in Roman letters and in slanted brackets / /; their manifestation in the cuneiform spelling is given in italics without brackets.

Thus the Urartian system:

	Consonants		Sonants		
	I	III	IV	V	VI
Labial stops:	/p/ p	/ṗ/ p[16]	/b/ b	-	/m/ m
Labial fricatives:	-	-	/v/ b, -u-, -Vb-u-	/w/ u,w_x	
Dental stops:	/t/ t	/ṭ/ t	/d/ d	/r/ r	/n/ n
Dental fricatives:	/s/ š	-	/z/? z?	-	-
Dental affricates:	/c/ s	/ċ/ ṣ	/ʒ/ z	/l/ l[17]	-
Velar stops:	/k/ k	/ḳ/ q	/g/? g?	-	
Velar spirants:	/x/ ḫ	-	/ɣ/ ḫ	/j/ i,g	-
Post-velars (uvulars):	/q/ q	-	-	-	-

Aspiration: if existed, must have been spelled ḫ.

Urartian probably distinguished between dental fricatives and affricates and dental bifocal fricatives and affricates, although this distinction was not revealed in its spelling system, s, ṣ, z being also used for /č, č̣, ǯ/, and š possibly also for /š/. This transpires from Armenian transcriptions of Urartian toponyms, and from PEC comparisons.

Vowels: /u/, /i/, /e/, /o/ (spelled u), /a/, and also a neutral unstressed vowel /ə/ < *i, *e, *o, *a (spelled Ci, Ce, Ci-e, Ce-e). The vowels were, as a rule, short, except

16) The phoneme /ṗ/ is reconstructed for Urartian on the base of ancient transcriptions of Urartian toponyms, cf., e.g., Urartian Ṣu-pa-a-, Ṭu-uš-pa-a-, Greek Σοφήνη, Θόσπιτις, Arm. Cop'-k', Tosp.

17) /l/ is, of course, a lateral sonant; placed here in order to economize space.

in cases of contraction (*-awa- > -â-, *-ai- > -â-, *-aw- unstressed > -əw- > -î-). There did exist diphthongs, viz. ai, au, ei, eu, iu and iə (< -'eja etc.), but at least some of them appear only in historical spellings.

Urartian was probably a tonal language (a contoured tone, usually pointing to the dropping of a sonant, velar, post-velar or pharyngeal fricative, or of an aspiration, was often expressed by a scriptio plena)[18]. Such tone on the last vowel, e.g. -â, preserved it from being neutralized. An expiratory stress lay usually on the penultimate syllable; some verbal forms may have been proparoxytonal.

As can be seen from the table, Urartian had lost all intensives (at least in spelling), palatalized dental fricatives and affricates, all laterals, most post-velars and all pharyngeals, and also the glottal stop as a separate phoneme[19].

Hurrian had several spelling systems, and often the character of a phoneme can only be found out by comparing its spelling in the different systems (even that is sometimes not sufficient for a final conclusion). In the following table B stands for the "Babylonian" orthography, Bg-Ug for Boğazköy and Ugarit (the two systems differ in minor details), M stands for the Mitannian orthography and RS for the spelling in the quasi-alphabetic cuneiform script of Ugarit - Ras Šamra.

18) Scriptio plena was also used to distinguish /i/ from /e,ə/ and for the diphthongs /ei/, /iə/. In all cases the scriptio plena was optional, not obligatory.

19) In Urartian the sign transcribed as 'a stands actually for wa_x as shown by M. van LOON, The Euphrates Mentioned by Sarduri II of Urartu, Anatolian Studies presented to H.G. Güterbock, Istanbul 1974.

The Hurrian phonological system is as follows:

	Consonants					Sonants	
	I - IV	II	B	Bg-Ug	M	RS	I-V	VI
Labial stops	/p- -b-/		b/p	b/p	p-,-b-	p-,-b-	-	/m/*m
		/-p'-/	b/p	-b(b)- /-p(p)-	-pp-	p	-	-
Labial fricatives	/f- -v-/	-	b/p/w	b/p/w$_a$	b/p/w	p-,-b-	/φ- -w-/ (spelled w/b/p/u)	-
Dental stops	/t- -d-/		t/d	t/d	t/d	t-,-d-	/r/*r	/n/*n
		/-t'-/	t/d	-d(d)- /-t(t)-	-tt-, -dd-	t	-	-
Dental fricatives	/s̄- -z̄-/		š,z	š	š	t-,-d-	-	-
		/-s̄'-/	š	-š(š)-	-šš-	-š-	-	-
Dental affricates	/c- -ʒ-		z-/s-, -z-	s	s-?	s	/l/*l[17]	-
		/-c'-/	-z-	-zz-	?	-z-,-s-[20]	-	-
Velar stops	/k- -g-/		k/g	k/g	k/g	k-,-g-	-	-
		/-k'-/	k/g	-g(g)- /-k(k)-	-kk-, -gg-	-k-	-	-
Velar fricatives	/x- -ǧ-/		ḫ	ḫ	ḫ	ḫ-,-ɣ-	/j/j,i	-
		/-x'-/	ḫ	-ḫ(ḫ)-	-ḫḫ-	ḫ	-	-
Post velars	/q^h/		k/ḫ	k/ḫ	k/ḫ	g/k	-	-

Aspiration: spelled either ḫ or zero.

*) Sonants can also appear as -ww- /-φφ-/, -mm-, -nn-, -ll-. -rr-, but these are probably geminated phonemes and not intensives.

20) The RS spellings with -z- and -ṣ- may reflect different H phonemes.

The question of distinguishing monofocal and bifocal fricatives and affricates in Hurrian remains unsolved, though some graphic and external evidence is in favour of the existence of such distinction.

The vowels were in Hurrian u, i, e, o, a, ə, just as in Urartian, all apparently short. All vowels, except for the neutral ə, could, according to THIEL, be either non-intensive or intensive, but it is probably better to regard them as having either a simple or a contoured tone, the latter expressed in careful spellings by scriptio plena and probably pointing to the loss of a phoneme of the post-velar or pharyngeal series etc., just as in Urartian.

In addition to the phonemes which U had lost, H also lost the voiced and glottalized consonants (the voicing of unvoiced consonants in the intervocal position is purely mechanical and non-distinctive). At the same time, it did retain the intensives, denoted as reduplicated in the M and inconsistently in the Bg-Ug orthographies.

The phonological system based on the opposition of non-intensive (voiced or unvoiced depending upon the position): intensive, without glottalized (emphatic) consonants, should probably be traced to a Near Eastern (non-Caucasian) substratum. It seems also to have obtained in Old Sumerian, in Elamite and in Proto-Dravidian.

Since Urartian had about 30 phonemes and Hurrian even less, while Common EC had, apparently, as many as 80, each Hurrian and Urartian phoneme must, as a rule, correspond to several EC phonemes; one may also expect diverse positional changes in the reflexes. If we take into consideration the difficulties and instabilities of the Hurrian orthographies, it is easy to see that the task of finding Caucasian etymologies for HU vocables is very tricky indeed; however, it proved to be not beyond human powers.

II. Etymologized Hurro-Urartian Vocables

We have here arranged the material according to the sound correspondences between HU and EC (a full comparative table see below)[21]. Pronominal and auxiliary morphs have been excluded from the list (unless they reveal some important sound correspondences), because they are specially dealt with in the grammatical section.

HU *p < PEC *p

1. HU *pîl-: U pîlə 'canal' < PEC *'ī-pīl$_1$V: AwAnd Tind pula 'pipe', Cz pelu 'pipe, reed-pipe', Čeč āpari 'wooden mill gutter'.

Regular. H pala 'canal' may also belong here, though the discrepancy in vocalism between U and H is inexplicable.

2. HU *pôra-: H pôra-(m)mi 'slave', U por-â, perhaps read *pôr-â < PEC *pwaHaʒ̂ʒ̂V: Lz p·až 'natural child', Ag baIž 'son', Tb baj 'boy, son'; Bžt ĉap-an (< *paĉ-an) 'youngling, nestling'.

Regular. On HU -r- < EC *ʒ̂(ʒ̂) see below.

HU *p < PEC *b

One could expect PEC *b > HU *b (cf. the development in the dental and velar series), but there must have been a shift in the labials, resulting in the unvoicing of *b (*b > *p) and the voicing of *p· (*p· > *b, see below).

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21) We use the following symbolic phonetic abbreviations: C - any consonant, V - any vowel, S - any sonant. In the reconstructed EC forms H stands for any laryngeal or pharyngeal (whose nature it is difficult to determine). In H and U, the symbol B stands when it is hard to determine precisely whether the phoneme in question was b or w, or v.

3. HU *pâl-: H pâl-, U pal- (or pâl-?) 'to pronounce, to tell' < PEC *banšV 'learn, teach': Aw maš·-ize 'learn, teach', maš· 'studies, teaching', Lk max-s·a 'tame'.

For PEC, either *b- or *m- may be reconstructed; the former is preferable in view of the HU evidence. PEC -n- dropped in HU according to rule.

4. HU *piç- 'be glad, rejoice': H pis-/piʒ-/, U piç- < PEC *bičč·ē: Aw biš·i 'mercy; god', Lk bič·i 'anxiety, trouble'.

Regular.

5. HU *p/φurl(l)- : H purli (spelling), ?U pur(u)li 'house' < PEC *b/wȳlc̨c̨wV: Arc noĉ (< *bonĉc̨ < *bolĉc̨) 'house, room', Gnz buĉi 'home', Lk burč̣-alu 'threshold'.

For H, also spellings with w- (= φ-) are attested, and a reconstruction of w- is not excluded for PEC. Thus the vocable in question may have originally had either the initial *b- or *w-. The final consonant in HU should have been -ll- (= EC *-c̨c̨-), but in a consonant cluster it was regularly shortened. On HU *r : EC *l see below.

HU *b < EC *p·

One should note that H -p·-, which could be expected to correspond to PEC *p·, is extremely rare and probably secondary, while the original *p· changed to *b in all positions.

6. HU *bVdV: U bedə 'side, turn(?)', postpos. 'on the part of', 'by' < PEC *p·VdV: L.Lz p·ad 'side', Krz bad-ow, Bd bodə 'beside'.

Regular (though the vocalism is not quite clear). Alternatively, *-t·- may be reconstructed, but *-d- is preferable in view of U -d-.

7. HU *borg-: U burg-ana- (> Arm burgn) PEC *p·or9wV (possibly also *b-, *w-; -qw-): Cz Inkh beɣ 'stable', And Akhw boryo, Krt beɣwa 'shed' (note that the Caucasians used to keep the domestic animals on the ground floor of their dwelling towers); cf. AA: Abkh a-bā (< *baya 'fortress', Kab baq 'shed'. Vocalism in U due to labialization. Cf. Addendum 3.

Whatever the initial phoneme, the correspondence is reliable. Note that also Greek πύργος 'tower' is, like many other Greek substratum words, borrowed from Caucasian.

8. HU *bawr-: H pawr-o 'brown' (spelled ba-ab-ru-; usually derived from I.-Ir. babhru-) < PEC *p·ȳHwVrV 'grey, brown': L Ag bure-r 'grey', Drg berḥe 'red, red-haired', Aw bur-ija-b 'brown, dark', N Čeč Ing bōra 'brown'.

Regular.

9. HU *ab-: U ab-il- 'to add, to join' (semantic probably modified by -il-) < PEC *'i-(r)p·V: L Udi eIb 'sewn', Drg irb-es 'to sew', N Bcb ab- 'to sew' (cf. Lzg rib, Erg. rip·-ini 'awl', Lk p·a id.).

Regular; -r- dropped in Inlaut according to rule; a- is a HU prothesis as in lots of other cases.

10. HU *ḫub-: H ḫu/oB-idi- 'calf; boy' < PEC *ḥup·V 'orphan': Drg ubaj 'stepdaughter, stepson', And Čml uba-b 'second cousin', N Bcb ba-d, Čeč bō 'orphan' (< PN *ba-du, cf. the suffix in H). Cf. also PAA *bIa, *jə-bIa 'orphan' (pharyngealization due to the loss of *ḥ).

The parallel is acceptable if the meaning 'boy', not 'calf' is primary in H. There are no objections on the phonetic side.

11. HU *qurbis-: H qurbiži (spelled k-) 'cloth worn under the coat of mail, or under the helmet' (> Akkad kurbisu, gurpisu,

qurbisu etc.) < PEC *qq·Vp·arčV: L Rt q·abačej 'sheepskin or fur coat', Aw qqabarča, And Čml qqabača id.

HU *qurbis- < *qubirs-. The EC forms seem to be derived, cf. Aw qqab-alu 'women's garments', Čeč beq (< *qēb) 'fur coat' et al.

HU *ṗ < EC *ṗ

12. HU *nâṗ-: U nâṗ-aḫ- 'to subdue, to overthrow' < PEC PL *laṗ-: Arč lap·us (< laṗ-bos, cf. durative laṗ-ar), Udi laṗ 'throw'.

Presumably regular (we should stress that glottalized *ṗ is extremely rare both in HU and EC). Some laryngeal or pharyngeal fricative is probably missing in PL, accounting for U -â-; perhaps Lk laIṗ 'a moment' (< *'a throw'?) should also be compared.

HU *f- -ḫ(ḫ)- < EC *f· (no parallels for EC words with *f attested)

13. HU *fan-fanV, *fâfanV: H fâvanə, U vâvânə 'mountain': PEC *f·anV: L Arč ḫ·wan 'shady slope of a mountain', Drg (dial.) x·ana id.; Lk han id.; Cz ḥon, Gnkh ḫwin, Khš hun 'mountain'; N. Bcb Čeč ḥun 'forest'.

Regular (reduplicated root). The pronunciation of HU *f- in Hurrian is not quite certain, because the Egyptian scribes spelled the H adjective fâva(n)-ḫə as pbḫ, although they had an f-sign at their disposal (but perhaps the Egyptian spelling was overtaken from Semitic scribes, for whom a transcription Pabaḫḫi was the only possible?)

14. HU *urḫ-: H urḫi 'true, constant, real' or the like < PEC *'yrf·V: L. Rt (dial.) yḫ-yd 'right', Drg -arx- 'straight, right, true'; Lk l-aš·a-n (< *-ax·a-, cf. Praet. l-ax·u-nu) 'to be equal, similar'; Aw -aš·-ad- 'similar, equal'.

No other examples for the correspondence -f·- : -ḫ(ḫ)- (H *-ḫḫ- probably shortened to -ḫ- in a consonant cluster, cf. example Nº 5 etc.) do exist, but the reflex seems very probable (cf. the development of *f· in EC languages).

HU *w < PEC *w₁ *w₁

15. HU *wâšV: U wâšə 'men, menfolk' < PEC werš(w)ē: L Arč boš-or 'man, husband'; Aw basi 'calf', And Akhw buša, Tnd boha 'bull-calf', N Čeč Bcb borš 'bull-calf', Čeč börša 'male'.

Regular.

16. HU *wa(H)er-: H φâîr 'the Seven Stars, seven spirits, the Pleiades' < PEC *w₁eHerʒ̂ʒ̂y 'seven': L Tb urḡ-ub, Arc wiĉ, Lz iri-d; Drg werḥe-l; And hoĉĉu; N Bcb worŝ, Cec Ing worh 'seven'. Cf. also PAA *bəžə 'seven'.

Regular. Note that the current H word for 'seven' was šitta, šinda (borrowed), but the name of the Pleiades had preserved the original term.

17. HU *wV-têq^{h}i : H φitêqi (thus, with q, spelled in a 'Subarean' [=Hurrian] gloss in an Akkadian vocabulary), φutki /φutk/ḫi?/ (elsewhere) - cf. PEC *dwirḥi (probably from *wi-dirḥi, with masculine gender marker wV-) 'son' : PL *t·wi(r)ḫ, Rt duḫ Ckh duḫ/diḫ, Krz Bd diḫ 'son'; Drg durḥa 'child'.

The HU *-q^{h}- must be an irregular reflex for *-ḫ- or *-rḫ-: this is the only word with a medial *-q^{h}-, at least within the established HU-EC correspondences.

Some other cases of the correspondence HU *w: EC *w₁ are presented in the grammatical section below (viz. etymologies of HU *w(e) 'thou', *-wə 'genitive suffix', *-wa 'dative suffix', *-ewa- 'conditional suffix').

HU *m/*n < PEC *m

Though the *m/*n variation is typical for EC, it is not attested for HU. The two variants appear in HU in complementary distribution, viz. n in Anlaut before the front vowel i and in Inlaut as a first component of consonant clusters (no clusters -mC- exist in HU), m in all other cases.

18. HU *mari- : H mari(j)-annə 'charioteer', U marə 'a rather highly placed group of the palace personnel' < PEC *m/ā/rʒ̂V: L Arč meĉ-le, Krz miḡ-il 'male', Drg marga 'male', PN *māre > Bcb, Ing mar, Čeč majra 'husband', 'brave man, brave'.

Regular (-r- < -ʒ̂-; the PEC *-r- is dropped in Inlaut according to rule). Usually derived < Indo-Iran. marya- 'young man'[22]; however, (1) the mariannə existed not only in Mitanni but also in other Hurrian regions not subject to Indo-Iranian influence; (2) the U gloss shows that the word is Common HU; (3) the mariannə are often listed in the documents by names, and the names are Hurrian.

19. HU *mann-: H mann-, U man- 'to be' < PEC *'i-ma(n) > PL *'i-ma: Lz ama, Tb imi-, Arč imm(a)- 'to stay'.

Regular.

22) See Vyačeslav Vs. IVANOV, Urartsk. mari, khurritsk. marianne, khajassk. marija-, in: Peredneaziatskij sbornik, III, Moscow 1979, p.101-112.

20. HU *maq-: U maq- 'to reach, to hit' (e.g. with an arrow; read UKN 277 : 2 ma-qú(!)-lu-nê). Cf. PN *maḳ- : Čeč mag-, Bcb maḳ- 'to be able'. Here may also belong H mag-annə 'present' (if not < Indo-Iran.).

Somewhat doubtful both semantically and phonetically (EC *ḳ should not correspond to HU *q in medial position, see below).

21. HU *mes(·)-: U meš- 'to collect', mešə 'tribute' (< *meš-V-šə) < PEC *məšwV (or *-a-): L Lz, Arč mas 'price', Ckh mas·a-heles 'to sell'; Drg mas 'article for sale'; Lk maša 'bargain'. Cf. PAA *š'wa 'price, to pay'.

The U word has probably nothing to do with H miz-i(m)mə 'levy' (the consonantal correspondence would be irregular); H miš-annə 'repayment, ransom' may belong here, if not < Indo-Iran. *mizdha-.

22. HU *niḫ-: H niɣ-ari 'dowry' < PEC *mĩxwV: Aw mux 'payment', And Krt muxu, (dial.) nixu id., N Čeč maḫ (Gen. mēḫa-n) 'bargain, price' (cf. also Čeč maḫa 'the price of one murdered person's blood (in a vendetta)'). Cf. also PAA *xwə 'price, bargain, to buy'.

Regular.

23. HU *amurt-: H *amurd-innə (> Akkad (a)murdinnu 'briar, bramble') < PEC *mVrtwV: L Lz mert (dial. mertw) 'barberry'.

Regular; *a- prothetic.

24. HU *aṣamb-: H azammi 'image, figure' < PEC *ṣṣə̄mbV 'idol, god; mercy': Drg ṣum 'mercy'; Lk ṣimi id.; Aw ṣṣob id.; N Bcb ṣijb (< *ṣiwb < *ṣēbu), Čeč ṣū 'idol, (heathen) god'.

Regular; *a- prothetic.

25. HU *osm-: U u/ošm-a-šə 'force, strength' < PEC */ʕ/ēms·V / *s·ēmHV: Drg ʕems 'muscle'; And Akhw s·e, Čml s·ej 'sinew'; (?) N Čeč sam-g 'sausage made of large intestine'.

Practically regular; the correspondence PEC *e : HU *a/o is normal.

26. HU *šimi-: H šimî-ga/-gə (diminutive) 'sun' (metath.) < PEC *mīŝwV: And Andi, Akhw, Tnd etc. miŝi 'sun'; N Bcb maṭḫ, Čeč malḫ 'sun'. Cf. also PAA *maŝwV 'day'.

Regular with a trivial metathesis.

27. HU *šumm- (< *šumr-?): H šummə 'hand' < PEC *ŝäm(V)rV, cf. Andi ŝumur 'handful' (the other EC languages reflect a metathetic root *mär(V)ŝV, cf. L Rt mäx, N Ing morh et al.).

The comparison is satisfactory, though we have to admit the secondary character of HU *-u- (probably secondary labialization in front of a labial); otherwise one should expect PEC *ŝ > HU l- before -u- (see below on the reflexes of laterals).

28. HU *sim-: H šim-ri 'fennel' < PEC *syʕymHV 'a k. of odorous grass': Lk san (Gen. sam-ul) 'Allium ursinum'; Cz Inkh zũ, Cezi zu id.; Aw saʕan 'mint'; N Bcb ṣtim 'wormwood, absinth', Čeč stim-urḫa 'hellebore'.

Regular.

29. HU *anṣ-: H anz-an-uɣ- (causative) 'to declare(?), to promise', anz-anni 'votive; promised' < PEC *'amṣV: L Rt h-aṣa-s, Ckh aṣa-xes, Krz -äṣ-äʒ 'to know'; Drg umṣ-es 'to search'; And Čml -aṣ-na 'to see'; N Bcb -apṣ-, Čeč -awʒ- 'to know'. Cf. PAA *ṩ(w)a 'to know'.

Regular.

30. HU *ẖinʒ-ori: H (spelled) ẖinz-u/orə 'apple' (> Arm xnʒor id.) < PEC *ʕIämćo: L Ag ẖač, Arč aInš, Lz ič; Drg ʕinc; Khn myč; Lk hiwč; And inči, Čml miči, Aw ʕeč 'apple'; N Čeč Ing ẖamc 'medlar'. Cf. PAA *bV-c·wV 'medlar'.

Regular (on *ć > ʒ see below). Note Sum. ẖašẖur 'apple (-tree)' < PEC (or PL?) *ʕIämćo-qIūrV, lit. 'apple-pear', cf. German Granatapfel and the like.

There is one example of EC *-m- > HU -Ø- in an Inlaut consonantal cluster. This was probably conditioned by the dental fricative nature of the following consonant (-ms·- > -ns·-; cf. a similar development in most EC languages):

31. HU *ês-: H êzə, U êšə 'sky' < PEC *ʔams·V: L Tb ams· 'cloud', Ud as-oj id.; Cz Gnz has, Cezi ẖas 'sky'; Lk as· 'name of a god; nobleness, conscience'; N Čeč as-ar 'inspiration' et al.

Two more cases of HU *m < PEC *m (HU *ma-nnə 'this', *mV 'negation') are discussed in the grammatical section.

HU *t < EC *t, *t·-

32. HU *at-: U at- 'to destroy, to eat (up)' (logogram KÚ 'to eat', but attested only in the sense of 'destroy') < PEC *ʾātwV : L Lz g-ata-z 'to beat, to forge, to chop', Rt -eta-s 'to pound'; Drg -it-es 'to beat'; Lk uta-n 'to throw, to pound, to chop', ta-la-n 'to fight'; N Čeč āta 'to crumble (tr.), to chop', l-ēta 'fight'.

Regular.

33. HU *qunt-: H k/ẖundarə, and in toponyms Qundur, H̱undur-na etc. 'abode of gods' < PEC *q·wyntV: L Lz q·unt 'mound'; Lk q·unt 'hill'.

Regular; in Hurrian -nt- > -nd- according to rule.

34. HU *tasgar-: H *taškar-innə (> Akkad taskarinnu) 'Buxus sempervirens'; taškar-ḫe '(of) boxwood'. Cf. PN *stagar > Bcb stagar, Čeč stajr 'Acer platanoides'.

Satisfactory. Transfer of term following the specific function of the wood, as material for artefacts. Boxwood does not grow in the Čečen area.

35. HU *teš(·)-: H teẕ-u/o-ʏə, tes·-oḫ·ə 'elder, overseer', U teš- 'to ripen'. Cf. PN *tiš-/ Bcb tiš-in, Čeč Ing tiša 'old'.

Regular.

36. HU *tem-: H tem-ari 'irrigation ditch, canal' < PEC *tamHV: Drg tum 'vein, sinew'; Cz Gnz tāḫe 'mill gutter' etc.

Regular.

37. HU *tâl-: H tâlə 'tree' < PEC *t·wāl$_1$ȳ (/*t·āwl$_1$ȳ): L. Arč dali, Rt dal 'long stick', Drg (dial.) t·al 'pole, post', (redupl.) t·ult·a, var. t·alt·e 'tree'; Lk t·ala 'log, cudgel'; N Ing täl-g (< *tāl- + dimin. suff. -iḳ) 'small stick'.

Regular.

Cf. also ex. 23 (HU *amurt-).

HU *-t·- < EC *-t·-

38. HU *at·aj: H at·aj, U atə 'father' < PEC *ʾat·ajV: L Tb edej 'grandfather', Bd ada 'father'; Drg ada (dial. at·a) 'father' (all the forms clearly point to *ʾat·ajV in the prototype).

Regular.

There is, however, one case of PEC *-t·- > HU *-t-, namely, in the allative suffix PEC *-t·V, HU *-ta (see below p.76-77).

HU *d < EC *d

39. HU *dad-: H tad- 'to love'. Cf. PEC *dadajV 'mother': L Lz, Bd dide, Krz däj; Khn dädä; Lk dada 'mother'.

Obviously a nursery word, therefore somewhat dubious, presuming that PEC *dadajV is < a pattern like H tad-ae 'loving'.

40. HU *daḫ-: H taʏə 'man, male' < PEC *dVq̇(I)V: Aw deʕen (< *deq̇-en), pl. duʕ-bi 'he-goat'; Cz Inkh ṭyq̇o, Bžt ṭöq̇ä 'kid'.

For PEC, also *t·- can be reconstructed, while H t- can be derived both from HU *d- and *t-. Therefore this is an example of either an EC *d- > HU *d- or an EC *t·- > HU *t- correspondence. On EC *q̇I : HU *ḫ see below.

41. HU *ard-: H ardə 'town', U Ardi-nə 'the Town' = Muṣaṣir < PEC *ʾVrdwV > PN *ʾurd: Čeč Ing urd 'allotment, district'. Cf. PAA *dwə 'yard'.

Regular. For the semantic development cf. Slavic *gordъ 'town', ONorse garð-r 'yard, farm'.

42. HU *sed-: H šed- 'to curse, damn', šid-arni 'curse, malediction' < PEC *sVrdV > PN *serd-: Ing serd- 'to curse, damn', Čeč Ing sard-am 'malediction'.

Regular; -r- dropped in Inlaut as in many other cases.

43. Hu *edi: H edə 'body, thing', U edi- *'thing' (> postpos., e.g. edi-nə 'for the sake of') < PEC */7/ädV 'thing': And Krt hede-la, Tnd eja (< *eda) 'thing'; Cz Bžt hada 'instrument'.

Regular.

Cf. also ex. 6 (HU *bVdV).

In the following example PEC *-d- seems to correspond to HU *-t(t)-:

44. HU *lut(·)-: U lutu 'women (coll.)' < PEC *ŝ·(w)VdV: Drg (dial.) xade 'female', Aw ŝ·adi 'wife'.

But actually U lutu < *lut·u < *lud-tu, where -tu is a morph of collective nouns, cf. U tau-tu-hə 'belonging to the living booty' < *tau-tu, et al. Also the H compound word-formative morph -t-ḫi is < *-tu-ḫ·i.

The correspondence of an EC lateral to HU *l- before the labialized vowel -u- is regular.

HU *t < EC *t

45. HU *ṭiruč-: U ṭirusi (U spelling), turuza (L.-Hier. spelling) 'a vessel and a capacity measure for liquids, probably one tenth of an aqarqi (see N^{o} 144)': PEC *ṭVručV: L Rt ṭurč, dial. ṭuryš 'scoop for liquids, big spoon'.

Quite regular.

46. HU *ṭer- : H terə 'forehead'. Cf. PN: Čeč Ing ṭē 'surface, front part' (probably < *ṭVrHV, cf. the derived adjective ṭēra 'upper, being on the surface of smth.').

Regular.

47. HU *ṭi-ṭi-: H tid- 'to share out, to separate', *tid-enni, hence Akkadized tidennūtu 'sharing out, re-division of land'; U ṭiṭj-u/o-šə: the spelling favours didju/ošə, but the suggested reading is, in principle, also possible, and is in agreement with the suggestion that the HU root is reduplicated - 'share, (movable) property' < PEC *ʾiṭ(w)V 'cut to pieces, divide': L Bd eṭ-i 'chop into pieces', Krz -iṭ-äš 'chop'; Drg (dial.) -uṭ- 'to share out, to divide'; Cz Gnz -iṭa 'to divide'; N Bcb teṭ-/tiṭ- 'to cut', Čeč ted- 'cut to pieces'.

Cf. especially the N form (PN *teṭ-/*tiṭ-).

48. HU *iṭ'-: H it'- 'to go (away)' < PEC *'iṭ(-Vr)- 'to run': Aw ṭ-ur-ize, And Tnd ṭē-ŝa, Gdb ṭ-ar-i; N Bcb iṭ-/-aṭ-, Čeč id-/-ad-.

Not quite regular; the reason for intensification or reduplication of *ṭ is not obvious. Nevertheless the etymology seems probable.

49. HU *siṭ-: H šid-u/ori 'maid(en)' (> Akkad. siduri). Cf. PN *ʒuṭ-: Čeč ʒuda 'woman, wife', Čeč Ing ʒud 'bitch'.

Regular. Note that PN *-u- can go back to a PEC front vowel (before or after a labialized consonant); Čeč and Ing -d- after a vowel can only be derived from *ṭ; hence PN *ʒuṭ- < *ʒiṭwV.

50. HU *gaṭV: H kadə 'barley' (> Lycian χad(a), χθθa[23]) PEC *ʒ̂ʒ̂əṭV: L Lz gad (Erg gat·u) 'crops, grain'; Lk č·aṭi 'a food made of flax seeds'; And Tnd ĉ̣ĉ̣eṭu 'seed, flax seed'; probably also N Čeč lod (Gen. lōda-n), lüjdig (< *lōṭ-iḳ) 'leaves enveloping the corn-cob'.

Regular (on the development of laterals see below).

51. HU *qulṭ-: U quldə probably 'steep' or 'precipice' (reading qulṭə is also possible) < PEC *qqwilṭə : Lk qunṭa 'pit, hole'; Aw qqiṭ 'hole, crevice', And Čml qqiṭw 'precipice'; Cz Gnz qiṭ 'gorge, ravine'. The correlation of Lk -n-: AwAndCz -Ø- (in clusters with dentals) indicates unambiguously a PEC *-l-.

23) See Vyačeskav Vs. IVANOV, Razyskanija v oblasti anatolijskogo jazykoznanija. 3-8, in Etimologija 1976, Moscow 1978, p.158-159.

HU *ṭ- < EC *r-

HU had no words with initial r-; this phoneme either changed to t-, or developed a prothetic a- (examples of the latter see below).

52. HU *taws(')-: H tawš-a-ɣlə 'lower side', 'bottom', tawš-uɣ- 'to turn over (?)' < PEC *rəc·wV: Aw rocc 'bottom, anus', And Tnd Krt ros·i 'behind, bottom; anus'; Cz Inkh los 'foundation, groundwork'.

Regular (metathesis *-c·w- < -ws(')-).

53. HU *tiḫ-: H tiɣ-an- (causative) 'to show' < PEC *'a-rq̇q̇IV-/*raq̇q̇IV- 'to see': L Tb raqI·-uz, Bd irqi; Khn zaɣi (< *raɣi); Drg -a'-/-i'- (dial. -ahI-/-arhI-) 'to see'.

The difference in vocalism between HU and EC can be explained by an old Ablaut (the root belongs to a group of EC verbal roots with *-a-/*-i- Ablaut). Note that the H root may also be *tḫ-, if we count the forms iṭḫ-i-b, uṭḫ-a-b as belonging here. Otherwise quite regular.

HU *-r-/-l- < EC *r

HU reflects PEC liquid sonants very much like Old Indian reflects I.-E. *r and *l: PEC *r normally yiels r, and *l, *l$_1$ yield l, but sporadically we find *r > l and vice versa. Among EC languages the Western Cezian group reveals the same instability of reflexes.

Examples of PEC *r > HU *-r-: *borg- (N°7), *bawr- (N°8), *urḫ- (N°14), *amurt- (N°23), *tasgar- (N°34), *ard- (N°41), *ṭiruč- (N°45), *ṭer- (N°46), *qurbis- (< qubirs-) (N°11), *čâri- (N°95), *icḫar- (N°85), *arš- (N°71), *saḫr- (N°73), *sêr- (N°76), *arçib/v- (N°105), *erç- (N°106), *čir- (N°103),

*šir- (N°117), *ḳaru/oB- (N°113), *ḳiriḳirianni (N°139), *ḳowr- (N°140), *ḳur- (N°141), *ker- (N°135), *aqarq- (N°144), *qarqara- (N°145), *qawr- (N°146), *qarV- (N°147), *qerV- (N°148), *ḫur- (N°153), *arḫ- (N°157), *ḫarḫar- (N°143), *ḫûr- (N°164), *u/or- (N°159,163), *ḫâri (N°161), *ḫur(w)e (N°162), *arwV (N°166), *awar- (N°168), *wûr- (N°165). Cf. also HU *-ra 'comitative suffix' in the grammatical section.

Examples of PEC *r > HU *-l- are few, but nevertheless reliable:

54. HU *alg-: Ur alg-â 'boundary, mountain ridge'(?) < PEC *ʕerqqwē: Drg urqi 'mountains'; Aw ʕorqqi 'border, boundary'; N Čeč raɣ (Gen. rēɣan), Ing arɣa 'low mountain ridge'.

Regular (PEC *e > HU *a).

55. HU *sawal-: H šawalə, U šâlə 'year' < PEC *swyrHo: L Lz sur; Aw -asra-ja-b, And Akhw -ašara-ŝa-b 'old'; N Čeč šo (Gen. šera-n) 'year', šira 'old'. Some EC languages reflect a metathesized form *ryH(y)swo, cf. Drg dus, (dial.) dus· (< *rus·) 'year', PL *jis· > Lz jis, Ag is· 'year', Ckh jis·e 'old' (< *ris· < *ryHyswo). Cf. also PEC *š·wa 'yesteryear'; AA *šwə 'year'.

Regular.

Quite often we observe the dropping of *-r- in medial clusters. This occurs always before velars and laterals, never before or after post-uvulars (pharyngeals and laryngeals; quite the reverse, the latter are always dropped in medial clusters with -r-, just as in clusters with -l- or -m-); before other consonants an elision of -r- may or may not obtain. Such instability of sonants in medial consonant clusters is typical for most EC languages; only the fact that

the rules of their elision are not the same for the different languages, gives ground for their more or less safe distinction when reconstructed in PEC. There is reason to believe that the process of loss of r in medial cluster was still going on in HU.

Examples of *-r- > -Ø- in medial consonantal clusters see passim above and below.

HU *Ø-, -j- ≤ EC *j

56. HU *egi, *igi: H egi, igi 'inside' < PEC *jerḳwi 'heart' L Lz riḳ, Rt jiḳ, Ag jirḳw; Drg urḳi; Lk daḳw (< *raḳw); Aw raḳ, Andi roḳwo; Cz Gnkh roḳwe, Cezi roḳu; N Bcb doḳ (< *roḳ), Cec dog. Cf. also PAA *ǵwə 'heart'.

Regular, with dropping of -r- in Inlaut. Note that the HU word for 'heart' is *tis-; for its possible etymology see below.

For EC *-j- > HU *-j- see N°38 (HU *at·aj). See also the etymology of the HU suffix *-ajə in the grammatical section.

Both in EC and in HU *j is a rather rare phoneme; its main peculiarity in PEC is, that, unlike other sonants, it cannot occur as a component of consonant clusters (i.e. clusters of the type *-jC- are impossible).

HU *n/m ≤ EC *n

The normal reflex in an absolute majority of cases is PEC *n > HU *n. Cf.:

57. HU *nek-: U nek- 'to overflow'. Cf. PN *nāke > Čeč nēka, Ing näk 'swimming, floating'.

Regular. PN *ā can be derived from several PEC long vowels, including the front vowels *ē, *ä.

58. HU *un-, *un-un-: H un-, U nun- 'to come' < PEC *ʾV-ʾwVn-: Lk n-an 'to go'; Cz Gnz -ə̄ʾa 'to come'; Aw ʾine, And Akhw -un-uĉa, Čml -ūna, Krt -oʾan-ŝa 'to go'.

Regular.

59. HU *gunV: U gunə 'right (not left), true' < PEC *ʾV-kkwVn- (/*ʾV-nkkwV with a metathesis typical for adjectives): Drg (dial.) d-uka 'right'; Aw kwaran- (< *kwan-ar-), And Krt inku- id.; N Čeč Ing d-ikan, Bcb d-ikin 'good' (d- old gender mark).

It's not impossible that the same root is represented in PEC *kkwVnV 'a conditional particle' (L Udi -gin; Khn -kʰwa; Lk -kun; Cezi -kin et al.). Semantically the development is easily explainable, and it's noteworthy that languages having *ʾV-kkwVn- 'right' and those having *kkwVnV 'conditional particle' are in complementary distribution.

60. HU *ḫan-: H ḫan- ' to bear (children)' < PEC *99IonV 'pregnant': L Lz qʰeni, Ag ȳane, Arč qIan; Aw q̇q̇in-, And Krt q̇q̇ena- 'pregnant'.

Regular.

61. HU *ḫenne: H ḫennə, U ḫenə 'now' < PEC *hVnV: L Ag hin-c (= N Čeč hin-ca, Ing han-ʒ); Drg hanna 'now'. Cf. also PAA Adyg, Kabardian nə- 'now'.

Regular.

62. HU *sûn- (or sû-ne?): H s̄ûnə 'breath, soul, self' < PEC *sʰun(ṭV) Drg sunṭ 'scent, odour'; Lk sʰunṭ 'snuff'; Aw sʰunṭ-ize 'to smell', sʰunṭ 'snuff'.

There are some difficulties with this root: (1) Comparison is possible only if -ṭV proves to be a suffix in PEC, which is dubious; (2) the H form may turn out to be composed of two morphs. Therefore this etymology is rather problematical.

Another possibility is to compare PEC žwi 'oneself' (cf. the meaning of the H form); in this case we would have to treat the H form as composed: s̄û-nə, which is quite possible.

See also N°13 (HU *fâfanV) and N°33 (HU *qunt-). Numerous examples of EC *n > HU *n are presented in the grammatical section (HU *-nV 'article', *-n(V) 'ablative suffix', *-nV 'an element in demonstrative pronouns', *inu 'how', *-n 'enclitic copula > conjunction').

Some special cases of the reflexation of *n in HU should be mentioned:

a) Sometimes EC *n > HU *m. The reasons of this development are different. Cf.:

63. HU *mûc̣V-: Hu mûz̄(V)- 'righteous, just', U mûṣə id. < PEC *niwc̣V > PN *niwsi-: Bcb nipsin, Cec Ing nijsa 'level, even; true, right'. Note that the H form is not quite regular (one should expect -z-).

Initial *m- in HU can here be explained by the effect of the medial *-w- (*-iw- > HU -û-).

64. HU *elm-: H el(a)mə 'oath', U elm-u/o-šə possibly 'vow' < PEC */ʾi/c̣inV: PL *ĉin > Lz q̇in, Ckh k̇in et al. 'oath'. Loss of the first syllable HV- in polysyllabic forms is normal for PL.

Here the reason of *n > *m is probably dissimilation (-ln- > -lm-). The correspondence HU *-l-: EC *ĉ is regular.

65. HU *ḫešm-: H ḫez̄mə 'clear, bright' < PEC *ḫ/o/ǯ̌ǯ̌Vn-: L Arc oIc̣in-, Udi muč̣-ur 'to clear up (of weather'; Aw r-occ̣ine id.

Note that in EC this is a verbal root, and there exists a rule according to which verbal roots can not end in -m.

Thus EC *-n is here probably secondary. The comparison seems satisfactory, inspite of a not quite clear vowel correspondence.

b) Several cases of vacillation between n and l are known in HU. There is one example of this in our comparative lexical material:

66. HU *sann-/*sall-: H in Arraphe *s̄ann-orə (> Akkad šannūru), elsewhere *s̄all-orə (> Akkad šallūru, Arm salor) 'plum(-tree), medlar' < PEC *swynē: L Tb švum-ʒaʒ, Rt syn, Ckh suna 'barberry'; Lk sunuw (> Aw sono) 'pomegranate'; Cz zin, Inkh zon, Gnz synu, Aw sani, And Tnd sani, Akhw šani 'barberry'. Cf. also AA Adygh, Kabardian sana 'currant'. Cf. Sum. š e n n u r 'plum, medlar'.

Regular (though not quite satisfactory semantically).

c) *-n- as the first component of consonant clusters seems to be retained before stops (cf. N°33 HU *qunt-), but dropped before affricates and laryngeals, cf. the following:

67. HU *es·-: H eš·ə 'horse' < PEC *7ȳnčwV: L Lz šiw, Arč noIš (< PL *'Iynšw); Drg urči; Aw ču, And Akhw ičwa et al. 'horse'. Cf. PAA *č'wə 'horse'.

Regular. Note that Sum. anše, anšu 'donkey' is probably a borrowing from a Lezghian-type EC language (< *'ənču). There are also other indications that Sum š could represent /č/. - The question whether I.-E. *ek'uo-s 'horse' is somehow related is bound to emerge.

68. HU *iç-: U içə 'basin' or 'canal' < PEC *7wȳnccy 'spring': L Rt wys-yn 'gutter', Bd wis 'spring'; Khn myc; Drg çiniz; Aw icc, And Akhw incci; N Čeč Ing ḫast.

Regular.

69. HU *sV-: U š(V)-uɣə 'new' < PEC *çinHV: L Lz çij-i, Rt çin-dy; Drg (dial.) çi-; Lk çu-s·a; Cezi eçno, Gnz -ȳçu; Aw

çi-ja-b, And Tnd çīhu-b, Akhw čin-da-be, Krt çino-b; N Bcb çin-in, Čeč çina 'new'. Cf. also AA *čə 'young, new'.

Regular (one of the cases of deglottalization of a sibilant affricate, see below). The PEC form was probably *çin'V > HU *si'- > *si- (*si-uḫi with the adjective suffix > s̄uɣi).

70. HU *sêḫ-: H s̄êɣ-(a)lə 'ritually pure', s̄êɣə, s̄îɣE 'pure (water)', U šêḫa id.(?) < PEC *ʒʒanHV (probably *-nḫ-; often metathetically *Hanʒ3V - which is typical for adjective roots): Cz Gnz -ācə-ru 'clean; Aw -aççine 'to clean', -aççə-da-b 'clean', And Akhw -aççan-da-b 'clean, pure'; N Bcb çajn, Čeč çena 'clean, pure'. Secondary is -m- in Drg umu-si (dial. am'u-, umzu- < PDrg *'amδu-) id. Cf. also PAA *p-ź̌V /*p-č̣V 'clean, pure'.

Regular.

HU *s, *š < EC *s(·), *š(·), *š(·), *z

The distinction of s vs. š is highly probable for HU, though it was not revealed in the orthography (as is also the case with other dental affricates and spirants). Judging from HU loanwords in Armenian, we can suppose that PEC dental and dental palatalized fricatives and affricates yielded HU dental fricatives and affricates, while PEC bifocals probably stayed unchanged (among EC languages the same happened in Dargwa and in Nakh).

Note that EC intensive fricatives were weakened in HU (on the origin of HU *-s·-, -š·- see below).

The above rule can be demonstrated by examples N°15 (HU *wâšV < PEC *werš(w)e[24]), N°25 (HU *u/osm- < PEC */ʕ/ēms·V),

24) If the EC form in question had a labialized consonant (which is possible because of the Andian forms), it should correspond to HU *-š·- (see p.37). This is also possible, because U -š- can reflect both HU *-š- and -š·-.

N°28 (HU *sim- < PEC *syʕymHV), N°31 (HU *ês- < PEC *ʔams·V), N°34 (HU *tasgar-: PN *stagar), N°35 (HU *teš-: PN *tiš-), N°42 (HU *sed-: PN *serd-), N°55 (HU *sawal- < PEC *swyrHo), N°62 (HU *sûn- < PEC *s·un(ṭV)), N°66 (HU *sann- < PEC *swynē), and the following:

71. HU *arš-: U aršə 'adolescents, young boys' < PEC *ʾV/r/šV: L Arc w-iš-du 'newborn son', d-iš-du-r 'newborn daughter', Ag r-uš· 'girl' (w-, d- < r-, r- gender markers); Drg urši 'son, boy'; Lk ars 'son'; Aw w-as 'son', j-as 'daughter' (w-, j- gender markers), And w-ošo, j-oši id. etc. Cf. Proto-Adyghian *ša- 'to bear (child)', *ša-wa 'son, lad'.

Regular (though there are some irregularities inside the EC languages: not clear is Lk -s instead of *š, and there are troubles with vowel reconstruction).

72. HU *asi-(?): U ašj- (spelled ašg-) 'to capture' < PEC *ʾVsV-: L Tb -is-uz, Arč sa-s 'hold'; Lk l-as-un 'to take, to buy'; Aw -os-ize 'take, obtain'.

Regular (with the exception of the vocalism which is not known).

73. HU *saḫr-: H šaɣri 'orchard' < PEC *šəHVrHV: Khn swa 'village'; Lk šaIra 'street'; Aw rosu (< *soru) 'village'.

The development of the semantics is usual ('garden': 'village, town' < *'enclosure').

74. HU *se/iḫ-, *suḫ-: H šeɣ-iri, U šu/oḫ-ori (/šeḫ-eri) 'alive' (cf. also H šeɣ-ori 'fate' or 'life') < PEC *s·ihIwV: Lk s·iḥ 'breath, vapour'; N Bcb Čeč Ing sa 'soul, breath'. Cf. also PAA *p-sV 'soul, breath'. The alternation e // u may be due to the labial w in the prototype, or to Ablaut, see Addendum 1.

Regular.

75. HU *sêl-: U šêl-ardə 'Moon, the Moon-goddess' < PEC *š·VlHV: Drg šali (dial. š·ala) 'light (n.)'; Cz reša (< *šera) 'ray (of the sun)'; N Čeč sa 'light'.

Regular. Note Greek σέλας 'light', σελήνη 'Moon' (very probably substratum loan-words).

76. HU *sêr-: H šêrə 'evening, West' (not 'night'!) < PEC *šwVrV: Aw sor-do 'night'; N Bcb psara, Čeč süjr-ē, Ing sajr-e 'evening'.

Regular, though the rules for the loss of labialization are yet to be established.

77. HU *šin: H šin-, U šî-šə (< *šin-(i)-šə) 'two'. Cf. PN *ši: Bcb ši, Čeč ši-' (-' marker of abstract count). Cf. Sem *ṯin- 'two'(??).

Regular.

78. HU *nas-: H naž-ardə 'concubines' (-ardə is a suffix of collective and abstract nouns) < PEC *nusV (or *nəwsV) 'bride, daughter-in-law': Khn çy-nas 'bride' (lit. 'new bride' = Bcb çi-nus id.); Aw nus, And Tnd, Krt, Andi etc. nusa; N Bcb, Čeč, Ing nus 'daughter-in-law'. Cf. also PAA *nəsa id.

Regular. The root may be in some way related to I.-E. *snus-ā.

See also in the grammatical section below the etymology of HU *(j)es-/*so- 'I', *-aš- 'plural suffix', *-s(V) 'ergative suffix', *-u/oš- 'suffix of the perfective aspect'.

HU *-s·-, -š·- < EC *-s(·)w-, *-š(·)w-

79. HU *as·-: H aš·- 'to sit', U aš- 'to sit', caus. 'to put' < PEC *ʾV(r)swV: L Tb urs-uz, Udi ars-/arc-; And Krt ḳ-us- 'to sit'; N Bcb, Čeč -is- 'to stay'.

Seems to be regular (though the EC vocalism is not clear).

§80. HU *aš(ʻ)-: U aš- 'to flee, to leave' < PEC *ʼaš·wV: Drg -aš- 'to go, to come'; Lk a-j-š·u-n 'to flee, to retreat'; Aw š·we-ze 'to come, to reach'.

Regular (we may expect a H *aš·-)

HU *s-, *š- < EC *c-, č-, ʒ-

For intervocal reflexes of these phonemes see below.

§81. HU *sV-: U š(v)-usə 'first' < PEC *cə(hə): L Lz sa, Udi sa; Drg ca; Lk ca-; Aw co, And Akhw če-be, Andi se-b; Cezi sis, Gnkh he-s; N Bcb cḫa, Ing caʕ, Čeč cḫa-ʼ (-ʼ is an abstract count marker) 'one'. Cf. also PAA *zV 'one'.

Regular.

§82. HU *suj- (or rather *s-uj-): H šui(-ne) 'all, every', U šuinə id. < PEC *cV- (or *s·V-: L Rt (redupl.) sa-sa-na 'every'; And Krt sa-ru, Gdb sa-nu, Čml sa-n 'together'; Cz Gnz se-n 'all, everything', se-se 'some'.

Regular. The root may be ultimately the same as the preceding.

§83. HU *sawl-: H šawlə 'health, prosperity' < PEC *ʒʒo(w)lˌV: Drg ara (dial. zara- < *ðara-) 'healthy'; Lk ẓullu- 'healthy, uninjured'; Aw -uççala-b-go 'wholly, all, everything'.

Regular.

See also N°49 (HU *siṭ: PN *ʒuṭ-) and N°70 (HU *sêḫ- < PEC *ʒʒanHV), N°132 (HU *saṗḫal- < PEC *čaHṗʌl-).

HU *-c-, *-č- < EC *-c-, -č-

See example N°45 (HU *ṭiruč- < PEC *ṭVručV) and also the following:

§84. HU *ec-: U esə 'place' < PEC *jicwV > L Tb jišv, Ag isw 'place', Udi iIša 'near'.

Regular (PL *-sw- < PEC *-cw-).

§85. HU *icḫar-: H icḫarə 'kitchen' < PEC */ʼV/cɣVrV: Aw caɣur 'corn-bin, barn'; N Čeč cḫar 'penthouse'.

The word for 'kitchen' may have originally meant something like 'auxiliary room, building' (cf. Abkh a-maẓurta 'kitchen', lit. 'auxiliary place').

HU *-ʒ- < EC *-ʒ-

See example N°151 (HU *gaʒ-: PN *ɣaʒ-).

HU *s (or *š) < EC *ĉ

This EC affricate, unlike *c and *č, seems to have turned to a fricative in all positions.

§86. HU *asd-: H ašti 'woman; wife' < PEC ĉ(V)dV (*c- also possible): Drg (dial.) cade 'female'; N Čeč stē, Ing se 'female'.

Regular; a- prothetic.

§87. HU *-s(u)wa in *tar-s(u)wa-: H tarž(u)wa-nnə, U taršua-nə 'man, human being' < PEC *ĉwijo (/*ĉiwo): L Lz -wi (usually in compounds), Ag s·vuj, Tab žvi, Udi išu; Drg sub (< *suw); Lk čuw; Aw či 'man'. Cf. also PAA *ĉə/*ẓə 'man'.

The comparison is possible if the HU form is compound (note that the EC root is usual in compounds of differend kinds). The first component *tar- has so far defied etymologization (cf. however HU tur- 'male' [see below N°127]; the morphs tar- and tur- could be related by Ablaut, see Add.1).

88. HU *ḫus-: H ḫuž- 'to bind, to detain', U ḫuš- 'to annul (services), to stem (water)' < PEC *ḥ̄ōčwV- 'to untie, unbind': L Tb -uč-uz, Arc oIša-s; Aw -ič-ize; And Tnd -ačw-iša; N Čeč -āst-, Bcb -ast- 'to untie, to unbind'.

Regular (the semantic correlation 'to bind': 'to unbind' is rather usual).

See also N°11 (HU *qurbis- < PEC *qq·Vp·arčV).

HU *-š·- < EC *-čw-

This rule is demonstrated by the ex. 67 (HU *eš·- PEC *7ɣnčwV). Such a development can be explained by the assumption that *čw (unlike *č) underwent an early spirantization (*čw > *šw) and consequently coincided with *šw > HU *-š·- (see p.37). Exactly the same development is observed in Proto-Lezghian, where PEC *č > č, but *čw > šw.

HU *-zz- < EC *-ʒʒ-

There is only one example of this correspondence:

89. HU *azz-: H azz-u/o-šhə 'tabooed, impure, sinful, sick' or the like < PEC *'aʒʒV: L Arč aç·i 'illness', Ag it·-al id.; Drg izz-es 'to be ill'; Lk çu-n 'to ache'; N Bcb l-aç-, Cec l-aʒ- 'to be ill'. Cf. PAA *ẓV 'to be ill'.

Regular.

HU *ž- ... -š- < EC *ʒ(ǯ)

90. HU *ži/ulumba: H zilumba (spelling) 'date of the Phoenix dactylifera' < PEC *ʒu(H)l$_1$amV/*ʒu(H)mal$_1$V: L Lz č·umal, Rt žumäl, Bd žumal; Drg žunab; Lk žunaw; Aw žulam 'cornel'; Cz Gnz šumal 'shrub, bush'; N Čeč ʒʕolam id.

Regular. According to the usual explanation, H zilumba is < Sum z u l u m (m) a , Akkad suluppu. However, it is more probable that the Sumerians (immigrants to Mesopotamia) transferred the name of cornel, not growing in their new homeland, to the date (which has a very similar structure of the fruit), than to suppose that the Caucasians transferred the name of an obviously exotic fruit to berries growing everywhere in their homeland from time immemorial. Therefore Sum z u l u m (m) a is probably another borrowing from the North, like a n š e and ḫ a š ḫ u r .

91. HU *žug-: H (spelling) zugə 'small, short' (= Akkad ṣeḫru 'small', but also = Sum t a r - (r) a 'cut (short?)') < PEC *ǯǯi/ḳw/V: L Tb žiq·i, Rt žik-dy 'short', And Cml čiḳku-b 'short, dwarfish'.

Regular (though there are troubles with the reconstruction of PEC medial consonant).

92. HU *ašu-: H ažu(-ʏə) 'a fir-tree' (> Akkad ašūḫu) < PEC *'aǯwV: And Krt eže-la 'pine-tree'; Cz Gnkh aže 'tree', Cezi ažwi 'bush'.

Regular.

Cf. also N°65 (HU *hešm- < PEC *ḥ/o/ǯǯVn-).

HU *-nʒ- < EC *-mč-; HU *-lʒ- < EC *-lš-

This rule reflects a special development of EC spirants and affricates (non-emphatic) after the sonants -n-, -l- in HU. Note, however, that EC *-rc- behaves in another way (see below).

See ex. N°30 (HU *hinʒ- < PEC *ʕIa̱mčo) and the following:

93. HU *ilʒ-: H ilz-iri (spelling) 'cardinal point of the universe' (there were four ilziri roundabout the Hurrian universe, each one probably provided with a watch-tower) PEC *'ilsV: Lk isu 'a boundary stone, a landmark'; Cz Gnz īz; Aw si, And Čml isa 'tower'.

Regular. The Cz nasalisation (corresponding to zero in Lk and AwAnd) points unambigously to PEC *-l- (*-n- and *-m- would behave in another way).

HU *c-, -c:- (-ç-?) and *č-, -č·- (-č-?) < PEC ć·, č(č)·, cc

In this set of correspondences Urartian has -ç- (spelled -ṣ-) in medial position probably because there was no other way of rendering intensive (or some other special kind of) affricates in the orthography. Hurrian must have weakened these particular affricates (there are no traces of intensivity in the Hurrian spellings).

94. HU *č/a/l-: H šali[25], U səl-â 'daughter' < PEC *-i-lć·wi: Drg r-ursi (dial. r-irs·i) 'girl'; Lk d-uš 'daughter'; Aw r-učč-abi 'women'; N Čeč d-ēca 'aunt' (r-/d- gender marker).

The etymology presupposes a metathesis (*-i-lć·wi < *-i-ć·wVli) which is quite probable for a root with prefixed gender markers (see note 15).

95. HU *čâri-: H šâri(y)-annə (> Akkad š/sirijām, Hebr sirjōn) 'coat of mail' < PEC *čč·əH(V)rV: L Lz č·ar, Rt ǯar 'cream'; Drg (dial.) žer 'bark, skin; Cezi šoru 'lamb-skin; kind of

25) Thus according to LAROCHE; otherwise postulated as šala.

foot-wear'; N Čeč ç̌or, Ing č̣or 'shell'.

Apparently regular.

96. HU *cen-: H šeni 'brother' < PEC *ć·amV: L Lz č·am, Tb ǯam 'fiancé, betrothed (man)'; Lk mač·a 'relative' (with metathesis); Aw maž-içç (metath.) 'third cousin'; N Čeč ʒamō, Ing ʒame 'best man'.

Not quite reliable: different vocalism. Change *m > *n which is hard to explain. Semantic satisfactory.

97. HU *ḫi/č/: H ḫizl-V (Ug. glossary ḫé-íz-la-e) 'to roll up' < PEC *Hič·V: L Tb -iǯ-uz ' to bind, to wind up', Ag -iǯ-as 'to wrap up', Arč čа-s 'to wind'; Cz Gnz (redupl.) čiča 'to wattle, to weave (baskets etc.)' et al. Cf. PAA *ǯV (or *ʒV) 'to wattle, to bind'.

Regular, if -l- is a word-formative morph (*-il-?).

98. HU *ḫi/ç/: H ḫic-(/-ʒ-?/) 'to pain, to grieve, to damage' or the like. Cf. L Rt ḫyc-dy 'wicked, malicious' (PEC *-cc > Rt -c).

Not quite convincing because of the isolated character of the Rutul word.

Cf. also N°4 (HU *piç- < PEC *bičč·ē) and N°68 (HU *iç- < PEC *7wȳnccy).

The example N°52 (HU *taws- < PEC *rəc·wV) can represent a special development of PEC labialized *-c·w-, or else we should assume HU *taw/ç/- with an exceptional development into H tawš- (cf. another case of it in N°63, H mûž-: U mûçə).

HU *ç, ǯ < PEC *ç(ç), *ǯ, ć

See N°29 (HU *anç- < PEC *'amçV), 24 (HU *açamb- < PEV *ççəmbV), 63 (HU *mûç- < PEC *niwçV), and the following:

99. HU *ṣarr-: H (spelled) sar-me (/ṣar-/) 'wood', ṣarṣarr- (> Akkad lexical gloss ṣarṣaru 'wood, grove'), U ṣarə 'orchard' < PEC *ṣwāl$_1$hV: Aw ṣul 'wood, firewood', And Krt ṣule, Gdb ṣuli 'big stick'; N Bcb ṭaw (< *ṣw-) 'branch'. Cf. PAA > Abkh a-ṣla 'tree' et al. Cf. Arm caṛ 'tree'?

Regular.

100. HU *ṣi-: U ṣi- 'to flow, to rain' < PEC *'ə-ṣwV(-r)-: L Lz ṣur-az, Ag iṣw-az, Krz ju-ṣur-iš; Drg -iṣ-es; Lk aṣi-n; And Krt -iṣ-aša; N Čeč -aš-a 'to melt'. Cf. PAA *(b)-zwə 'to melt'.

Regular. The semantic development is rather natural for dwellers of high mountains.

101. HU *ṣiṣṣ-, *ṣuṣṣ-: H (spelled) zizzi 'mamma, female breast', zizz-u/ohhə, zuzz-u/ohhə 'spouted jar' < PEC *ṣoṣV (or *ṣṣoṣṣV): L Lz ṣuṣ 'spout', Krz ṣyṣ 'clitoris'; N Čeč ṣuz-am 'spout'.

Regular.

102. HU *ṣur-g-: H (spelled) zurgi 'blood' < PEC *ʦ̈ä$\hat{ʒ}$wV: L Tb ʧiwi; Aw ʧago-, And Krt ʧagu- 'alive'; N Bcb ṣig, Čeč Ing ṣij 'blood'.

Regular (on *$\hat{ʒ}$ > r see below). H -gə must be regarded as a suffix, on which see below.

103. HU *ʧir-: U ṣir-ab- 'empty, uninhabited'. Cf. PL *ʧiry-: Lz, Tb ʧuru, Krz ʧirä 'wild', Ag ʧire-r 'bad'.

Regular.

104. HU *ʧûl(-)ud-: H (spelled zûlud-) 'to release, unbind' PEC *ʧwōl$_1$HV: L Lz, Tb ʧul, Arc ʧot; Lk ʧuluw; Aw ʧolo, And Krt ʧwale, Tnd ʧwali 'strap, thong'.

Phonetically reliable, but there are some doubts on the semantic side; the difference in meaning is perhaps conditioned by the verbal suffix -ud-.

105. HU *arṣib/v-: U Arṣib/və name of a horse, presumably 'Eagle' (cf. Arm arcui, dial. arciw, Georg arṣiv- (< Arm or U) 'eagle') < PEC *ʂwārṣṣimʂV (/-wʂV): L Ag marṣ; Drg (dial.) ʂarʧime; Lk barzu (< *ʂw-); Aw ṣṣum (< *'arṣṣum); And Btl ṣṣũ'i (< *'ar-ṣṣum'i); N Bcb arṣib, Čeč ärzũ 'eagle'.

Regular. Indo-Iran ṛjipya- is probably a borrowing from PEC; the same is certainly the case with Arm arcui, although the ways of contact were probably different.

106. HU *erṣ-: U erṣ- 'to return' < PEC *'i(r)ʧwV: L Tb u-ʧv-uz, Rt ä-ʧwa-s 'to enter', Krz q'-äʧ-äš 'to go out'; Drg kab-aṣ-es 'to descend' (compound); Aw -orʧ-ize 'to run out'; N Bcb -erṣ-, Čeč -erʒ-a 'to turn, to return'. Cf. PAA *ʒ'V 'to return'.

Regular.

107. HU *ṣinṣ-: H (spelled) zinz-aBə 'pigeon(?)' or 'swallow' < PEC *Ci/n/CV (the root varies from language to language: *c-, *ṣ-, *č-, *ʧ- etc.: ideophonic!): L Tb psinʧ 'swallow'; Khn čänč 'pigeon, dove'; And hi-ṣṣirča 'swallow' et al. Cf. also PAA *ʧVšwV 'swallow'.

Regular (?).

HU *s < EC *ṣ

This correspondence is observed in three cases, which seem reliable enough. What was the factor that had caused a deglottalization of *ṣ, is not clear (note that *ṣw, *ṣṣ, *ʦ̈ and *ʧ always remain glottalized).

See N°69 (HU *sV- < PEC *ç̣inHV) and the following:

108. HU *ḫaš-: H ḫaž- 'to hear', U ḫaš- 'to hear, to listen'. Cf. PN *ḫaç̣-: Bcb ḫaç̣-, Čeč ḫaʒ- 'to hear'.

Regular.

109. HU *-si: H ki-žī 'thirty' (cf. *ki- 'three') < PEC *w₁en-çy 'ten': L Lz çu-d, Tb jiçu-d, Arč wiç; Drg weç̣-al; Lk aç; Aw anç̣- etc. The HU form is to be compared directly with PEC *-çy, the abbreviated form used in compound numerals cf. e.g. L Rt xib-çy-r, And Bgw haba-ça, Krt ŝaba-ça-da 'thirty' etc.

Regular.

HU *-sḫ- < EC *-rç/ć-

This is a very special phonetic change (not observed elsewhere in EC). It seems to be typical only for non-emphatic affricates (cf. N°105, HU *arçib- and N°106, HU *erç̣-, where nothing of the kind happened). There is, however, one case of *-rç̣- > HU *-sḫ- (see N°112 below); it is probably due to the general ambiguous behaviour of EC *ç̣ in HU (*ç̣ > a) ç̣; b) s).

We can explain this phenomenon if we assume that the aspiration, characteristic for PEC unvoiced consonants, was longer preserved in HU in the combination */rc^h/ > /rcḫ/, with a later dropping of the cluster-initial sonant. Note that -r- was in itself rather unstable in HU (see below N°110). Note also that U r was weakly rolled and probably aspirated, yielding Arm r, a phoneme of the same type.

110. HU *oshu/o: H u/oš̄hu/o(-ne) 'silver' < PEC *'I/e/rcō: L Tb, Ag ars, Arc arsi; Drg arc; Lk arcu; Aw ʕarac, And orsi,

Akhw arči, Tnd asi; Cz Khwš os 'silver'. Cf. PAA *rVźwV-nᵊ 'silver'.

Regular. Note that early PHU *orcḫ- (before the dropping of -r-) must habe been borrowed into Kartvelian, cf. Proto-Kartvelian *werch-l- 'silver'. Also cf. I.-E. *arg´- (+ suffixes) 'silver'. The date of the dropping of *-r- was late, cf., e.g., the place name U *Ṭo(r)šp-â, spelled Ṭu-uš-pa-a- (etc.), but Assyrian Ṭu-ru-uš-pa(-a), Arm Tosp.

111. HU *ash-: H ašḫi 'skin' < PEC *'wārćwV 'colour; skin; anxiety': L Krz ʕuč 'colour', ʕič 'skin' (with Ablaut); Aw aču 'anger, anxiety'; N Čeč orca, Ing oarc 'anxiety'; Lk burču (< *'w-) 'skin'. Cf. PAA *cwa 'skin; colour', indicating that the original meaning in PEC must have been 'skin' (with a typical semantic change *'skin' > 'colour', (cf. other cases like Pl *ĉ·al 'skin, bark': Aw ĉ̣ĉ̣er 'colour'), and 'colour' > 'anger').

Regular.

112. HU *ash-: H ašḫ- 'to raise, to offer', ašḫ-u/o 'high, above', U ašḫ- 'to offer'. Cf. PAnd *hi/erç̣V- 'high, raise': Čml heç̣-ub 'high', heç̣-ala 'to raise', Krt herç̣-ob 'high', Andi hirç̣i 'high', Akhw heč̣e-da-be 'high', heč̣-or-uĉa 'to lift, to raise'.

Regular. PAnd *h- may derive from various PEC laryngeals, which are dropped in HU.

HU *g(a)-, *k(a)- < EC *ʒ̂ʒ̂-, *ĉ

EC lateral affricates and spirants reveal an intricate pattern of behaviour in HU, depending upon their position (Anlaut or Inlaut) and upon the following vowels. Thus, in Anlaut before the back vowel a the lateral affricates probably turned into velars (a development typical also for most Lezghian languages, Darghi and Laki).

Cf. N°50 (HU *gaṭV < PEC *ʒ̂ʒ̂əṭV) and the following example:

113. HU *ḳaru/ob/w-: H karuBə 'granary' < PEC *ĉ̣VbVrV (or *-w-): And Akhw ĉ̣uhur, (dial.) ṭobor, Tnd ubar; Cz Bžt ĉ̣ibe, Gnz ĉ̣iber 'shed, barn'.

Regular; a trivial metathesis < *ḳaBu/orV.

HU *l(u)- < EC *ʒ̂ʒ̂-, *ŝ·-

Before the back rounded vowel u (or o) EC laterals preserve their lateral character and turn into l-. Cf. N°44 (HU *lud-(tu) < PEC *ŝ·(w)VdV) and the following example:

114. HU *lu/olV-: H lul-a-ḫ·ə 'foreigner, metoecus', U lul-uwe 'foreigner, enemy' < PEC *ʒ̂ʒ̂ŏlV 'guest, neighbour': Aw ĉ̣ĉ̣er-il-aw 'person of the same age'; Cz Cezi ĉir-ba, Khs ĉar 'guest'; N Čeč lūla 'in the neighbourhood', lūla-ḫō 'neighbour'. Cf. Greek Λέλεγες 'aborigines (of Asia Minor') < Carian < Hitt. < H.

Regular. Note the N reflex!

HU *š(i)-, *š(i)- < EC *ĉ̣(ĉ̣)-, *ŝ(·)-

Before front vowels in Anlaut EC laterals turn into dental affricates and spirants (cf. an analogous development in some Lezghian languages like Tabasaran).

Cf. N°26 (HU *šimi- < PEC *mīŝwV) and the following:

115. HU *šil(V)w-: U (spelled) zil(i)B- 'seed, descendants' < PEC *ĉ̣ĉ̣iw-il$_1$V: L Tb č·iw 'root'; Aw ĉ̣ĉ̣ibil 'root, kin'; And Tnd he-ĉ̣ĉ̣ib 'root; seed'. Cf. also PAA *ĉ'·wəla 'seed; inhabitants, kin; village'.

116. HU *ž̂el-: U (spelled) zel-də 'liver' < PEC *ĉ̣wäHälV (often with metathesis: *Häläĉ̣wV): L Lz leq̇, Tb liḳ; Lk

t·iliḳ; Aw ṭul (< *ĉ̣-), dial. ĉ̣ul, And Akhw reĉ̣e-ĉ̂i; N Ing dijḫk, Čeč doʕaḫ (< *läHäĉ̣wV with *ĉ̣w regularly > PN *-ḫḳ).

Regular (inspite of the frequent metatheses in EC).

117. HU *šir-: H šir- 'to be equal, alike' < PEC *'a-rŝ·wV: L Arč ŝ·wā-na 'be alike'; Lk -ax- 'to fit, to suit'; Aw reŝ·-ine, And Krt -aŝ·an-ŝa 'to be alike'; Cz Khš aŝ, Cezi iŝa 'similar'; N Bcb t-arŝ-eno, Čeč t-era, Ing t-ara 'similar'.

Satisfactory. A metathesis usual for EC verbal and adjectival roots (*'a-rŝ·wV < *'a-ŝ·wVrV).

118. HU *šijV-: H šijə 'water, river' < PEC *'ä-ŝV: L Rt s-äxa-s 'to become wet', Ckh al-ex-as 'to melt', Ag d-ix-ef 'liquid'; Aw -iŝ-ize 'to become liquid', redupl. ŝa-ŝa-ze 'to irrigate', And Krt -aŝ-aŝa 'to pour (of rain)'; N Bcb Čeč -il- 'to wash'.

Not quite satisfactory; the prototype (excluding the prothesis 'ä-) might have been expected to be bisyllabic. Perhaps it would be better to compare HU *šijV (< *ši'V) with PEC *x·än7y 'water' (: L Lz jad, Tb šid, Ckh ǩan, Arc ŝ·an, Rt xäd; Drg šin; Khn xu; Lk š·in; Cz Inkh ŝŏ, Gnz šў; Aw ŝ·in; And Akhw ŝ·eni, Krt ŝ·ĕji; N Bcb, Čeč ḫi). The dropping of -n- would be regular (see p.34 above), but one would have to suppose a palatalization *x- > *š- before the front vowel -i- (which is not excluded: velar and lateral fricatives behave in rather similar ways in EC).

HU *-l-, *-l- < EC *-ĉ̣-, *-ĉ̣-, *-ŝ-

In the medial position all PEC laterals except *ʒ̂(ʒ̂) are reflected as -l- (intensives and reduplicated - as -ll-, see below). Cf. N°64 (HU *elm- < PEC */'i/ĉ̣inV), N°3 (HU

*pâl- < PEC *banŝV) and the following:

119. HU *wâl-: H φali 'worm' (read /φâlə/) < PEC *wV̄H(V)rĉwV-: Lk (dial.) baIrčalu 'snail'; Cz Inkh bekol, Cz bikori, Bžt bekela 'snake'; Aw borox 'snake', And Akhw berka, Tnd beḱa 'snake, worm'; N Čeč bō̯halla, Ing bʕeh̯al 'snake' (the correspondence Aw x : P And, PCz *k : PN *h̯ points to PEC labialized *-ĉw-).

Regular; *-r- dropped in HU according to rule.

120. PHU *al-: H al-ummi 'end; last' < PEC *'V̄ŝV 'to begin, to end': L Arč (bej-)eŝ·a-s (-ŝ·- < PEC *-ŝ-!) 'to begin'; And Čml -aŝ-la 'to begin'; Cz Gnz -ola 'to begin; to end'; N Čeč -ōla 'to begin'.

Regular.
Cf. also HU *-l- 'optative suffix' (in the grammatical section).

HU *-ll- < EC *ĉĉ·, *ç̑ç̑

Cf. N°5 (HU *purl(l)- < PEC *bV̄lç̑ç̑wV) and the following:

121. HU *all-: H all-ae 'lady, queen', *all(a)e-γə 'household' (> Arm aɣx 'household'), allae-h̯hi-nnə 'housekeeper' (> Akkad allah̯(h̯)innu, lah̯innu do., also a kind of serving girl of the temple personnel; Arm aɣaxin 'servant girl, slave girl; Aram ləh̯entā 'serving girl, concubine'); U al-usə 'lord, master, owner (??)', al-a-we 'great', al-c-uj- id. < PEC *'āĉĉ·V > PN *'āŝi: Bcb aŝe, Čeč ēla, Ing äla 'prince, chief.

Regular. PN *-ŝ- can only go back to a PEC intensive lateral affricate.

122. HU *u/oll-: U u/ol- 'to go, to start going', causative

'to carry off' < PEC *'/ə/rĉĉ·V: L Ag argi-s, Arč aĉi-s 'to come'; Lk uk·a-n 'to go out', ulu 'come!'; Cz Gnkh -uŝa 'to go', Aw -iĉĉ-ine 'to go, to walk'; And Krt -oĉĉ-aŝa, Tnd -eĉĉ-iŝa 'to go', ĉwē-ŝa 'id.', ĉe 'come on!'; N Bcb 1-eŝ-, Čeč 1-ēl-a 'to go, to move'. Cf. also PAA *ʒ̂wV 'to go, to enter'.

Regular (though the vocalism is not quite clear).

123. HU *u/oll-: H u/oll- 'to perish', causative 'to destroy' etc. < PEC *'Vrç̑ç̑w-Vr-: L Lz t-uḳwa-z, Rt urgwa-s, Arc ç̑wa-s, Krz kur-iǯ 'to slaughter'; And Akhw ç̑ç̑w-ar-uruĉa 'to kill'.

Seems to be reliable, though nothing can be said about the vocalism.

124. HU *h̯ill-: H h̯ill- 'to speak' < PEC *Hīç̑ç̑V-: Cz Gnz iĉa 'call', Cezi eĉa 'to speak'; And Tnd hiç̑ç̑-iŝa 'say, speak'; N Bcb aŝ-, Čeč āl- 'to speak'.

Regular. For PEC also *-ʒ̂ʒ̂- might be reconstructed, but *ç̑ç̑ is preferable because of HU *-ll-.

HU *-r- < EC *-ʒ̂(ʒ̂)-

See N°2 (HU *pôra- < PEC *pwaHaʒ̂ʒ̂V), N°16 (HU *wa(H)er- < PEC *w₁eHerʒ̂ʒ̂V), N°18 (HU *mari- < PEC *m/ā/rʒ̂V), N°102 (HU *ç̑ur- < PEC *ç̑äʒ̂wV) and the following examples:

125. HU *ar-: H ar-, Ur ar- 'to give' < PEC *'i-ʒ̂ʒ̂V: L Ckh h-el-es, Arč ĉo-s; Lk ulu-n 'to give'; Aw ç̑ç̑e-ze 'to give', -iç̑ç̑-ize 'to share out, to distribute'; Cz Khš iĉa 'to give'; N Bcb -aŝ-, Čeč -al-a 'to give'.

Regular. The HU root is *r-, but this phoneme being forbidden in the initial position, it has developed a prothetic a-.

126. HU *ar(V)n-: U arnə, aranə 'favour, mercy' (but cf. /arn-io-šə/'deed'?) < PEC *'i-ʒ̂ʒ̂wVn- (/*'i-nʒ̂ʒ̂wV- with a usual metathesis): L Lz ḳan xun, Tb k'un xuz, Arč ç̣an 'to love, to want'; Aw -oç̣ç̣-ize 'to want, to wish, to love', And Cml -oç̣ç̣-īla 'to love, to want', Gdb r-uç̣ç̣i 'love (n.)'; Lk č'wa-n 'to love, to want'; N Bcb la-'-, Čeč la-'a 'to want'.

Regular. In HU there is a prothetic a- (as in the preceding case).

HU *t- (or n-?) < EC *l-

PEC had two lateral sonants, *l and *l_1 (both are normally reflected as l in Eastern and Western EC, but distinguished in Central EC, where *l > r, but *l_1 > l; PN reflects the distinction only before the suffixed -ḳ- (diminutive), where *-lḳ- > -lḳ-, but *-l_1ḳ- > -rḳ-; -l_1- is also sporadically reflected as -r- in PN in a few other cases).

In the example N°12 (HU *nâṗ- < PEC *laṗ-) HU seems to reflect PEC *l- as *n-. This is, however, the only example of such a development. On the other hand, there are three cases where PEC *l- seems to have produced HU *t- (cf. *r- > *t-):

127. HU *tur-: H tur-oh'ə 'male' < PEC *lywʒ̂V (also with metathesis *ʒ̂ywlV): L Tb žili-r 'man', Ag ile-f 'male', Arč čele 'men'; Khn lyg-yld 'man'; Lk lak '*man, person' > 'a Laki', lak'u 'Lakian'; Drg (dial.) gal 'boy'; B Bcb -law, Čeč -lō 'suffix denoting profession, -man'. For PEC *l_1- may also be reconstructed.

Seems to be regular (on *-ʒ̂- > -r- see above).

128. HU *tis-: H tiža, tiž-ne, U tiš-nu 'heart' < PEC *lȳs'V 'throat, gullet': L Rt lys 'gullet'; Cz Gnz rys 'throat'; Aw ris'-ḳi 'gullet', And res'i 'throat'.

Note that the original PEC word for 'heart', *jerḳwi had in HU acquired the meaning 'inside' (see N°56), and thus another root, originally meaning 'gullet, interior part of the body', could well have taken its place.

129. HU *tiw-: H tiwe 'word; thing', U ti(j)- 'to say', ti-nə 'name' < PEC *le7IwV: Drg luʕi 'number'; Aw raʕi 'word, speech'; Cz Inkh loje 'word'.

Regular.

HU *l- < PEC *l_1-

Unlike PEC *l-, in the only known case PEC *l_1- is reflected as HU *l-:

130. HU *lêl-: H lêlə 'ear' < PEC *l_1eḥl_1V: Drg liḥi; N Bcb lar-ḳ, Čeč Ing ler-g 'ear'. *l_1 is probable as the initial consonant here, because two different *l-s were hardly possible within one word, and the second sonant surely must have been l_1 (judging from the N reflex). Cf. PAA *l'V/*ʒ̂V 'ear, to hear'.

Regular.

HU *-l-/-r- < PEC *-l-, -l_1-

Here we can try to formulate the following rules:

a) There are some cases when *-l- and -l_1- are neutralized in PEC, namely when this phoneme is either the first component of a consonant cluster, or the last consonant of a verb root (in the latter case it was phonetically probably

*l_1, i.e. the verb roots could end in *-l_1, but not in *-l). In all these cases HU has -l- (except when the next consonant is a lateral; here *-l- > -r- by dissimilation, cf. N°5 HU *p/φurl(l)- < PEC *b/wȳlĉ̣ç̣wV). Cf. N°51 (HU *qulṭ- < PEC *qqwilṭə), N°93 (HU *ilʒ- < PEC *'ilsV), N°94 (HU *č/a/l- < PEC *-i-lć·wi < -i-ć·wVli); for the verb roots, cf. the following:

131. HU *gul-: H kul- 'to say, to pronounce solemnly' PEC *'V-gwVl-: L Rt h-alga-s 'to talk', Arc lag-um 'song'; Drg (dial.) -alḡw-n- (regularly < *-agw-l-) 'to ask'; Lk uk·wi-n, k·wa-la-n 'to read, to count'; Aw gal-ize 'to speak, to say, to talk', And Gdb gul- 'to speak, to talk'.

In one case we cannot distinguish EC *-l- from *-l_1-:

132. HU *šaḫalV: H šapḫalə 'left' < PEC *čaH(V)ƀVl- (or -l_1-): L Ag čaIƀl-an-f, Lz čapla; Drg (dial.) čipil 'left'.

Regular. Note that U salmaṭḫi hardly means 'left' and is not etymologizable from this root.

Note that HU always preserves -l- in medial clusters (unlike *-r-, see above).

b) PEC *-l- also always yields HU *-l-. Cf. N°75 (HU *sêl- PEC *ś·VlHV), N°114 (HU *lu/olV- < PEC *ʒ̂ʒ̂ōlV), N°116 (HU *ɣêl- < PEC *ĉ̣wäHälV).

c) PEC *-l_1- in most cases > HU *-l-. Cf. N°1 (HU *pîl- < PEC *'ī-pīl$_1$V), N°37 (HU *tâl- < PEC *t·wāl$_1$ȳ), N°83 (HU *sawl- < PEC *ʒʒo(w)l$_1$V), N°90 (HU *ɣi/ulumba < PEC *ɣu(H)l$_1$amV), N°104 (HU *ĉ̣ûl-ud- < PEC *ĉ̣wōl$_1$HV), N°115 (HU *ɣil(V)w- < PEC *ĉ̣ĉ̣iw-il$_1$V), N°130 (HU *lêl- < PEC $l_1$ehl$_1$V) and the following example:

133. HU *ḫel-: H ḫel(-)di 'lofty, highborn' < PEC */7/ā-ḫVl$_1$- (also with a usual adjectival metathesis */7/ā-lḫV-): L Arč lāḫa 'to be long, high'; Drg ḫala-l 'big'; Lk halḫ·a- 'long, high'; Aw ḫ·ala-ta-b 'long'; PN Bcb -aḫe-n, Čeč -ēḫa, Ing -ʕäḫa 'long'.

Note the Aw form (ḫ·ala-ta- = H ḫel-di).

Cf. also in the grammatical section the etymology of HU *-lV 'pronominal copula pl.'.

But in a few cases in HU *-l_1- > -r- (on the analogous vacillation of the reflexes of *-r- see above p.29). Cf. example N°99 (HU *ç̣arr- < PEC *ç̣wāl$_1$hV) and also:

134. HU *aḫr-: H ayri 'incense' < PEC *hVl$_1$HV: L Lz jal 'breath, odour', Krz ʕal 'breath', Arc hil id.; Aw hali 'boiling', And Tnd ha'e, Andi hal 'steam'; N Čeč ʕä, Ing ʕi 'steam'.

Regular; a- HU prothesis.

The same development is probably observed in the causative morph HU *-ar- (see p. 88 below). We may note that both in N°99 and 134 we actually deal with the PEC cluster *-l_1h-. As for the causative morph *-l_1-, the possibility that it may have lost a laryngeal (< *-l_1h-) cannot be excluded, either.

HU *k < PEC *k, *k·-

135. HU *ker-: U kerə 'bowl' < PEC *k·ōrV: L Lz k·ur, Rt gyr 'cup'; And Tnd (redupl.) ǧiǧar 'mug'. Cf. also AA: Abkh a-gara 'cradle'.

Not certain because of the difference in vocalism (perhaps a case of Ablaut, cf. Addendum 1).

Cf. also example 57 (HU *nek- < PEC: PN *nāke).

HU *-k'- < PEC *-k'-

Only two grammatical morphs with such a correspondence are known to us, namely HU *-(k)kai 'prelative suffix' and HU *-k'- 'negative suffix' (see below p. 79,91).

HU *g < PEC *g, *kk

See examples N°131 (HU *gul- < PEC *'V-gwVl-) and N°59 (HU *gunV < PEC *'V-kkwVn-).

HU *k-, -g- < PEC *k

In the word-initial position HU certainly has *k- i.e. U q-, H k-/ḫ- (spelling), graphically non-discernible from *q-. In the medial position, however, the situation is somewhat more complicated. There is one certain case of HU *-g- (N°142, HU *ag-) and one uncertain case of *-k- (N°20, HU *mak-: PN *mak-). Other examples are ambiguous (without decisive U correspondences).

136. HU *kanag-: H (spelled) kanagi 'mastix (tree)' (> Akkad kanak-tu), kanag-ithi 'mastix resin': < PEC *kkwVnV: Cz Gnkh q̇lone 'pine tar', Aw kkweni 'fir-tree'.

Regular (reduplicated root).

137. HU *kakkar-: H (spelled) kakkari (> Akkad kakkaru 'a sort of sweetmeat') < PEC *kwy/r/kwV-: L Arč kurkuni, Krz kuk, Udi kokoli; Khn kuku 'cake, sweetmeat'. Cf. also AA Abkh a-kwakwar id.

Regular. The fact that the Akkadians heard the word as /kakkari/ is not relevant: the H *k/ḫ sound was certainly unlike Semitic q.

138. HU kew-: H (spelled) k/geb-, ḫew-, k/ge(w)- etc. 'to

put' < PEC *'V-k(w)V-: L Ag ik-as 'to put, to lay'; Drg (dial.) -ak-/-ik- id.; Lk 1-iči-n (Praet. li-w-ku-nu) 'to put in, to establish'; And Čml -ekw-āla 'to put'.

Regular, if the HU form is *kew- and not *kef-.

139. HU *kiri-kiri-anni: H kirikiri(j)annə 'seed of pine-cone' (> Akkad kirkiriannu) < PEC *kerkenV: L Tb kekel 'a little stone'; Cz Gnz keke 'roasted grain'; Aw korkonu 'berry; grape'; And Krt karkan 'egg' et al. Cf. also PAA *kakanə/*kanəka 'egg; walnut', with regular loss of the consonant -r-.

Fairly regular.

140. HU *kowr-(?): H (spelled) ḫubr- probably 'smoke', cf. ḫubr-u/o-s̄(i)hə 'incense burner (no spellings with k/g or with -w-, -wa- attested; RS ḫbr-). Possibly cognate with N Bcb Čeč Ing kur 'smoke'.

Dubious because of H spellings (indicating HU *ḫowr- rather than *kowr-).

141. HU *kur-, *ukr-: H ukrə, U qurə (for ku-re(-e)-le passim read qú-re(-e)-le) 'foot' < PEC *kwirV: L Lz kur 'foot, hoof', Arč kwiri 'animal's foot'; N Čeč kur-am 'astragal, hip-bone of sheep for playing dice'.

Regular.

142. HU *ag-: H ag-, U ag- 'to lead, to bring; to lead away' < PEC *'VrkV- 'to drive': L Ckh aka-n-ās 'to drive out', Arč aka-s 'to drive, to urge'; Drg (dial.) -irk-/-urk- 'to drive'; N Bcb -ik- 'to lead', Čeč -ig-a id.

The loss of -r- in Inlaut is regular. Similarity to I.-E. *ag'- probably fortuitous.

Cf. also N°56 (HU *egi < PEC *jerkwi) and N°91 (HU *ǯug- < PEC *ǯǯikwV).

HU *h < EC *x

Cf. N°22 (HU *nih- < PEC *mīxwV) and the following:

143. HU *har-har-: U har-har-š- 'to demolish' < PEC *(H)arxVr- 'to sweep': L Rt ax-/rax-; Lk -aši-n (Praet. -awxu-nu); P And *ŝar- (< *'arŝar-): Krt ŝar-aŝa, Akhw ŝar-uruča 'to sweep'. The loss of final -r in a verbal root in Rt and Lk is regular.

Regular (though semantically somewhat dubious).

Note the possibility of the palatalization *x(·) > *š in HU before front vowels (see p.49, N°118: HU *šijV < PEC *x·än7y?).

HU *q-,-g- < EC *q(·), *ġ

Medial *-q- is retained in HU only in reduplicated roots.

144. HU *aqarq-: U aqarqə 'a measure of capacity' < PEC *ġġwV(r)q·V: Lk q·uq·u 'jug, pitcher'; N Čeč phēya (ph- < *ġw-) 'vessel, pot'.

Regular (if PEC really had -r-, which would have regularly been dropped in Lk and Čeč before a uvular); a- is prothetic.

145. HU *qarqara-: H karkar-ni, U qarqara- 'armour' < PEC *qqer(i)ġwV: L Lz ġerġ 'chain mail, coat of mail', Bd ġerq 'shell', Ckh ġarġw 'sheepskin coat'; Drg (dial.) qariġw 'sheepskin coat'; N Čeč, Ing ɣaɣ 'chain mail'.

Regular, except for developing a reduplicated form qarqara- instead of the expected *qarq(u).

146. HU *qawr-: H k/ḫawr-, U qəwr-â, qîr-â 'earth' < PEC *qwy'rV: L Ag, Rt ḫuj; Drg, Lk qu; Aw ḫur, And Akhw quri, Tnd ḫuja; N Čeč, Ing qa 'field'. Cf. also PAA *rəq·(w)a 'field' (metathetic).

Regular.

147. HU *qarV-: H *k/ḫar-a-ḫ·(i)-wə, *k/ḫarafḫə (> Akkad karapḫu) 'fallow' < PEC *q·wārē: Lk q·ur 'field for ploughing', q·uru-qu 'fallow'; Aw ra-kkuri 'fallow'.

Regular (although vocalization not quite clear).

148. HU *qerV-: H (spelled) keri, ker-ae 'long, far away' < PEC *qē7VrV: Drg haraq- 'far' (metath. < *7ērVqV); Cz Gnz hə'əru, Bzt ho'oro 'high'; Cf. Lk laqi- 'long' (< *raqi-, influenced by laq- 'high', from another root). Cf. PAA *qara 'far'.

Regular.

149. HU *qê-: H k/ḫê-š(i-)ḫə (RS gṯḫ) 'settee, throne' < PEC *'i-ġwV-: L Ag iġwa-s, Rt s-uġwa-s 'to sit'; Lk iġwa-n 'to be', Aw -uk-ine 'to be'; N Cec ḫ-a'-a (< *-aġ-) 'to sit'.

Regular (although HU preserves no trace of labialization).

150. HU *qi-: H (redupl.) kig (no spellings with ḫ- attested) 'three'. Cf. PN *qo Bcb qo, Cec qo-' 'three' (-' marker of abstract count).

A very probable etymology, though the vocalism is not clear. Note that 'two' is also a HU + N isogloss.

Cf. also N°11 (HU *qurbis- < PEC *qq·Vp·arčV), N°33 (HU *qunt- < PEC *q·wyntV), N°51 (HU *qulṭ- < PEC *qqwilṭə).

For the medial reflex *-g- cf. N°54 (HU *alg- < PEC *ʕērqqwē). Note that U al-ga- can also be read al-qá-.

HU *g < PEC *9(9)

151. HU *gaz-: U gaz-uli 'beautiful'. Cf. PN: Bcb ɣaz-en

'good' (possibly < *9V3V). There are, however, difficulties with the PN reconstruction, because Čeč has ḫaza 'beautiful' with an irregular initial ḫ-.

Seems to be satisfactory.

152. HU *ig-: H e/igi , eg-o 'cold' < PEC *'ir99wV-: L Lz req'i-z, Tb a-r-γ-uz, Ckh q-iγar-as 'to freeze, get cold'; Drg -irʕaIs (dial. -irʕw-as); And Cml jaq̇q̇i id.

Regular.

HU *ḫ < EC *q(:)I, *q̇I, *9I

Cf. examples N°40 (HU *daḫ- < PEC *dVq̇IV), 60 (HU *ḫan- < PEC *99IonV) and the following:

153. HU *ḫur-: U *ḫur- 'to drink' (cf. UKN 268:28 'let this <lake> be the ḫur-i-š(i)-hə of the town N'). Cf. PL *'V-qI'Vr- 'to drink': Rt -raγI-as, Ckh il-oγI-as, Krz q'yr-iǯ, Bd s-oγuru 'to drink'.

Regular (except for that the PEC vocalism is unknown).

154. HU *iwḫ-: U iwḫ- (spelled iBḫ-) 'to destroy', IBḫ-arə 'name of a goddess' < PEC *'Vr99IwV-: K Ag arȳ-as, Arc aqIa-s; Drg (dial.) -urʕ- 'to break'; Lk l-iq̇Ia-n 'to be destroyed'.

Regular; -r- dropped in Inlaut according to rule.

155. HU *u/oḫ-: H uγə 'pig' < PEC *HVqIwV (vocalism impossible to establish): PN *ḫaqa > Bcb qa, Čeč, Ing ḫaqa 'pig, sow'. Though the N languages do not preserve pharyngealization, its existence in PEC is suggested by the AA parallel: PAA *qIwa 'pig, sow'.

Regular.

HU *ḫ < EC *ḫ, *ḫI, *ḫ'

Cf. examples N°108 (HU *ḫaș-: PN *ḫaç-), 133 (HU *ḫel- < PEC */7/ă-ḫV1$_1$-) and the following:

156. HU *ḫa-: H ḫa-, U ḫa- 'to take (away, etc.)' (cf. Akkad ḫaphī 'mountaineers', apparently < H *ḫa-fhə 'habitual grasper, robber') < PEC *'V-ḫ'V-: L Rt -iḫe-s 'to carry', Arc ḫ'e-s 'to carry away, take with oneself'; Drg -iḫe-s 'to carry'; Lk uḫ'i-n 'to carry away, drive away'; N Bcb -aḫ-, Čeč -aḫ-a 'to carry, carry away' (H *ḫa-fhə < *ḫa-ḫ'i-wə).

Regular.

157. HU *arḫ-. W. MAYER (Ugarit-Forschungen, 12 (1981), 297 sq.) proposes to translate the phrase mî-i ar-ḫe ú-ru-li-a-nê in the curse formula of the royal inscriptions as 'let no outway appear (to) him'. If this translation proves to be correct, then U arḫə 'way, outway' can be compared with PEC *'arḫIi 'march, journey': Drg arḫaI, Lk arḫI'i 'march, journey', Lz jaḫ-di 'by foot'.

158. HU *ḫaḫ-l-: H ḫaḫli 'cheek' < PEC *ḫIwymḫIV: Cz Inkh ḫIuḫI, Gnkh ḫuḫ, Cezi ḫuḫ 'cheek'; Aw ḫ'weneḫ 'muzzle, snout' (dial. ḫ'umaḫ' 'face'), And Čml ḫunḫu, Akhw ḫ'amaḫ'ul 'face'.

Regular; -m- dropped before a fricative according to rule.

The HU reflex of PEC *ḫ'(I) in medial position is unknown (one would expect HU *-ḫ'-).

HU *Ø < EC *', *'I, *7, *ʕ

Numerous examples of this correspondence see above. Cf. also in the grammatical section below etymologies of HU *a- 'this, that', *i- 'this, that, the same', *-a 'locative suffix'.

HU *Ø < EC *'w

See N°58 (HU *un- < PEC *'V-'wVn-) and the following:

159. HU *u/or-: H u/or- 'to become, to appear' < PEC *'V-'wVr-: L Tb e'-uz , Ckh -i'ar-as 'to be, to stay, to sit'; Drg (dial.) -u'- 'to dwell, to stay'; N Čeč ʕa-n, ʕē-n, Ing ʕe 'to rest, to repose, to stay'. The root-final -r, preserved in Ckh, is regularly dropped in the other languages (a development which is typical for verb roots).

Seems to be regular; however, the H root may be = U u/or- 'to work(?)', see N°163 below. In that case, the etymology is not tenable.

HU *h- -Ø- < EC *h *hw

In Hurrian there seems to have existed a phoneme *h, spelled alternatively as ḫ or Ø. We have not found EC parallels for roots with that phoneme (which are very few in number). In all cases HU has h- for PEC h (which is probably similar to what happened in Hittite, where I.-E. *h > ḫ).

See N°61 (HU *ḫenne- < PEC *hVnV), N°134 (HU *a-ḫr- with prothesis < PEC *hV1$_1$HV), for the medial position - N°81 (HU *sV- < PEC *cə(hə)). Other examples are:

160. HU *ḫai-: H (Sub. gloss) ḫai-annə 'little' < PEC *'a-hV(j)-: Cz Gnkh ehe-nnu, Gnz ije-ru 'little'; Aw d-ah- 'little, few', And Tnd d-ah-ar 'few'; probably also N Bcb -aw-in, Čeč -aj-n, Ing -aj 'light (in weight), cheap'.

Regular.

161. HU *ḫâri: H, U ḫârə 'road, march; way'. Cf. L Ckh wuhur, possibly also N Čeč ūr-am 'street' (PEC *'Vh(w)VrV or the like; the available forms present too little information about

the possible vocalism and exact structure of the PEC root).

162. HU *ḫurwe (from an earlier *hwurV): H (spelling) ḫurrə, ḫurwə 'morning, East' (not 'day' as translated earlier!); 'land of the Hurrians' < PEC *hw/ȳ/re: Drg ḥeri 'day, midday'; N Čeč ʕūrē, Ing ʕujra 'morning' (et al.); And Akhw ruhi (metath. < *huri) 'morning, dawn' et al.

Regular.

163. HU *u/or-: U u/or-'to work(?)', ur-i-š(i)-hə 'instrument(?)' (cf. É urišḫu/osə 'store of utensils') PEC < *'əhwV(r)-: L Arč a-s, Rt -a'a-s, Krz jäʕ-äʒ/jer-iʒ 'to do'; Drg -ir-es 'to become'; Lk a-n 'to do, to make'; Cz Gnkh -uwa, Gnz -uwa, Bzt -owa-1 id.; And Tnd -ih-iŝa id.; N Bcb -e-, Čeč -a-n id.

Regular (And -h-: Cz -w- point to PEC *-hw-).

HU *ḫ < EC *h *ʕI *'Iw *hIw

Note that this rule is violated in clusters of the type "sonant + pharyngeal (laryngeal)", where the latter is usually dropped (except when the sonant is -n- which was dropped earlier, cf. N°70, HU *sêḫ- < PEC *ʒʒan/ḥ/V). This is what happened also in most EC languages (and is the main reason why the precise quality of the laryngeal in a cluster is so hard to establish).

Examples of this correspondence are: N°30 (HU *ḫinʒ- < PEC *ʕIãmĉo), N°65 (HU *ḫešm- < PEC *ḥ/o/ǯǯVn-), N°74 (HU *se/iḫ- < PEC *s·ihIwV), N°88 (HU *ḫus- < PEC *ḥōĉwV-) and the following:

164. HU *ḫûr-adi: H ḫûr-adə, U ḫur-adə, ḫûr-adə 'warrior' (possibly in all cases /ḫor-adə/) (> Akkad ḫurādu id.) < PEC *'IwəhrV: Lk 'Iar-al; Cz Gnz haz (< *-r); Aw bo, N Čeč

bʕo (< *'Iw- with dropping of -r- in a cluster).

Regular; -adi is a very productive HU word-formational suffix. Akkad ḫurādu is comparatively late.

There exist also other examples of HU *ḫ < EC laryngeals and pharyngeals, but in many cases for PEC their precise value is not known (in such cases we write *H).

HU *w < EC *ḥw, *7w, *ʕw

165. HU *wûr-: H φûr- 'to look, to see' < PEC *ḥwVrV: Drg ḥer; N Čeč bʕar (< *ḥw-) ' a look, a gaze'.

Regular.

166. HU *-arwV 'year(?)' (perhaps 'summer' or 'spring' rather than that): H šin-arBu/o 'two years old', tumn-arBu/o 'four years old' etc. < PEC *rV7wē: Aw ri'i 'summer' (also other AwAnd), N Bcb duḫa 'spring'.

Regular; a- prothetic. For the semantic of *sawal- 'year' vs. *-arwu/o 'n years old' cf. in Russian god 'year', dvuxletnij 'two years old' < leto 'summer'.

167. HU *awV: H awə, ajə 'face, front' U ajə 'before' < PEC *'yʕwV 'face; edge, front': PL *'wy-r- (with a locative suffix) > Arč ha-ra-k 'in front', Ag u-ri-h, Bd ʕü-ra id.; Drg -aIḥ (with prefixed gender markers) 'face'; Aw b-eʕ 'face, shape, outlook'; N Čeč j-üḥ 'face', d-üḥ-ig 'end', Ing j-uḥ 'face', d-uḥ 'beginning' (in Aw and N b-, j-, d- are gender markers, cf. Drg b-aIḥ, d-aIḥ, w-aIḥ, j-aIḥ 'face' - referring to different persons or animals).

Regular.

168. HU *awar-: H awarə 'field, open space, steppe' < PEC *ʕwVrV: L Rt 'Iur 'lawn'; Aw ʕuru 'virgin soil; turf'.

Regular; a- prothetic.

Another example of HU *w from an EC labialized pharyngeal see in the grammatical section below (HU *-wa- 'negative suffix'). One exception from the rule is N°68 (HU *iç- < PEC *7wȳnccy), probably due to an early delabialization (*7w > *7).

III. A comparative table of EC-HU sound correspondeces

Consonants

PEC	PHU	PEC	PHU
*p, *b	*p	(*-č̆w-	*-ǯ·-)
*p·	*b	*ć	*s, -(n)ʒ-
*ṗ	*ṗ	*cc, ć·, c·	*c-, -c·-(?)
*f	?	*č̆·	*-č̆·-(?)
*f·	*f-, -ḫ-	*ʒ	*s-, -ʒ-?
*w, *w1	*w	*ʒ́	?
*m	*m(/n)	(*-ʒʒ-	*-ʒ·- or/-c·-/?)
*t	*t	*ǯ	*ǯ-, -š-
*t·	*t-, -t·-	*ç	*ç/s
*d	*d	*ć	*ç
*ṭ	*ṭ	*č̆	*č̆
*r	*t-, -l/r-	*s, *s·, *š, š·	*s, (l)ʒ
*j	*Ø-, -j-	*ǯ, *ǯ·	*ǯ
*n	*n(/m)	(*-s(·)w-	*-s·-)
*c	*s-, -c-	(*-š(·)w-	*-š·-)
*č	*š-, -č-	(*-rC affr.	*-sh-

PEC	PHU	PEC	PHU
*ĉ	*-l-	*x	*ḫ (/š(i)-?)
*ĉ·	*-ll-	*q,*q·,*q̇	*q-,-g-(or -q-?)
*ĵ	*g(a)-/l(u)-,-r-	*ɋ	*g
*ç	*ḳ(a)-/ž(i)-,-l-	*qI,qI·,q̇I,ɋI	*ḫ
(*-ĉç-̇	*-ll-)	*ḫ,*ḫI	*ḫ
*ŝ,*ŝ·	*š(i)-/l(u)-,-l- (reflex of *s̄· in medial position unknown; one would expect *-ll-)	*ḫ·,*ḫI·	*ḫ (reflex of *ḫ· in medial position unknown; should be *-ḫ·-)
*l	*t-(/n-?),-l-	*',*'I	*Ø
*l$_1$	*l-,-l-/-r-	(*'Iw	*ḫ)
*k	*k	*h	*ḫ-,-Ø-
(*kk	*g)	(*hIw	*ḫ)
*k·	*k-,-k·-	*ʔ,*ʕ	*Ø
*g	*g	*ḥ,*ʕI	*ḫ
*ḳ	*ḳ-,-g-	(*ʔw,*ʕw,*ḥw	*w)

Vowels[26]

PEC	PHU
*i,*ä	*i (in Anlaut *i-/*e-) (before and after labialized consonants often *i > *u)
*e	? (reflexes uncertain: most often *e/*i, but also *a; in Anlaut also *o-)
*ü	? (reflexes unknown, *ü being a very rare vowel in EC)
*y	*i (in Anlaut *i-/*e-) (before and after labialized consonants *y > HU u/a with an uncertain distribution; in cases of early delabialization, as in N^{o}s.67,68, *y normally > *i)
*ə	*a (but after initial laryngeals > *u,/o/, as in N^{o}s.122,164
*u	*u
*o	*u/o (sporadically also *a)
*a	*a (in a great majority of cases; a fronting *a > *e seems to have sometimes taken place in the vicinity of nasals, cf. N^{o}21,31,36,70, 96. Note that *a is never subject to labialization; one case of HU -ô- < *a, N^{o}2, is obviously due to contraction).

26) The correspondences are stated only for root-medial vowels; one should keep in mind that the vocalic system of PEC underwent drastic changes in the descendant languages, thus, e.g., PN *a does not necessarily presuppose PEC *a, and vice versa. The correspondences of root-final vowels are not clear (for PEC a more or less reliable reconstruction has been achieved only for root-final vowels in nominal roots; for HU it is not even clear whether root-final vowels existed, since vowels in Auslaut are usually regarded as 'thematic', and thus not belonging to the root).

IV. Elements of comparative HU-EC morphology

The comparative grammar of Caucasian, and in particular Eastern Caucasian languages is yet to be written. But even now we have many grammatical morphs reconstructed with a sufficient degree of certitude. Among these a considerable number of morphs can be shown to exist also in Hurrian and Urartian.

Word-formation

The following HU suffixes can be provided with EC etymologies:

1) HU *-V-h̯ʿə is a suffix of adjectives denoting material or an inherent feature; sometimes simply provides the stem with an adjectival, i.e. attributive, function (cf. H hijaru/o-hhə 'golden', turo-hhə 'male', aštо-hhə 'female', lûla-hhə 'foreign'; U šu/oh̯ə 'new', tar-ae-u/oh̯ə 'mighty' etc.). Cf. PAnd *-xu- 'suffix of adjectives' (Krt šʿiw-xu- 'milky', heru-xu- 'reddish' etc.) The Andian suffix must be the same as PN *-h̯a-w 'suffix of nouns denoting status or profession', cf. Čeč ḫar-hō 'miller', lūla-hō 'neighbour' etc., going back to PEC *-xʿwV. If the HU-EC comparison is correct, this will be a case of the correspondence 'PEC *-xʿ-: PHU *-hʿ-' (not attested among the lexical comparisons above).

2) HU, H *-V-nnə - a suffix of substantivized relative adjectives expressing profession or status (H mari-annə 'charioteer', targum-annə 'interpreter', all-a(e)-hhe-nnə 'housekeeper', uš̄ri-annə 'heir' etc.). Cf. PEC *-nV (PN *-n, PL *-n) id. Ultimately this is probably the same morph as PEC *-nV, HU *-nə 'genitive/ablative suffix' (see below).

3) HU *-V-zzi - a suffix of adjectives denoting an external feature (H aštu-zzi 'feminine', targum-azzi 'able to act as interpreter', U (sometimes substantivized) al-usə 'ruler', *at-usə 'paternal' etc.). Cf. PL: Lz ḳul-ac 'humpback' (ḳul 'hump'), Tb qIul-aç 'malicious creature' (qIal 'evil') etc. Though the suffix is strongly expressivized and thus behaves in a rather irregular manner, it must be reconstructed as PL *-Vç̇ < PEC *-(V)ʒʒV.

4) HU *-ajə (H -ae, U -ai,-ae,-ajə) is a very frequent and many-functional suffix. It is often used in an adverbial, adjectival, gerundial or participial function, alone or together with other suffixes (cf. H tadae 'loving', U tuaje 'clean'; H allae 'lady' etc.). An analogous suffix (though not so productive) we find in EC: PL *-j 'suffix of various gerunds and participles' (Lz -Vj participle of the past tense, Udi -j,-i id., Ag -j suffix of the present gerund etc.). The same suffix is obviously attested in a great number of nouns (names of people, animals, plants et al.). It can be reconstructed for some PEC nouns, but outside the Lezghian area it is productive only in Laki, cf. Lk -ija 'a deverbative suffix' (h̯ʿalh̯ʿ-ija 'plant' from h̯ʿalh̯ʿ- 'to grow' etc.).

5) HU *-ga - a diminutive suffix (H aštа-ga 'Weibchen', Šaʾuš̄-ka 'name of a goddess [3rd millennium B.C. Šaʾušа]' etc.; sometimes also -gə, cf. šimi-gə/šimi-ga 'sun', çur-gə 'blood' - compare the specific use of a diminutive suffix in Russian with a connotation of endearment or awe: soln-ce, soln-yško 'sun', krov', krov-uška 'blood' etc.). Cf. the PEC diminutive suffix *-ḳV, productive in Aw (-ḳo, e.g. wasi-ḳo 'doll') and N (PN *-ḳ: Bcb -ḳ, Čeč,Ing -g). Traces of this suffix are left in most of the other EC languages, where it, however, lost its productivity. It is probably cognate to PAA *-ḳə 'a suffix denoting singularity'.

In HU there is also a number of less productive nominal suffixes with meanings that are hard to define. Some of them also seem to have their counterparts in EC.

6) HU *-(a)lə : H šêγ-(a)lə 'pure', U burg-ala 'ally' etc. Cf. PEC *-(V)l$_1$V 'a denominal, deverbal or deadjectival suffix': L Lz,Ag,Tb,Rt -l, Arč,Udi -la (cf. Lz iše-l, Tb iša-l,

Rt jäšä-l 'crying' from PL *7äš'ä 'to cry' etc.; same suffix often used in adjectives, cf. Ag ḥarč-le-r 'right', Rt xym-yl-dy 'liquid' etc.); Drg -la (izza-la 'illness'); Lk -alu, -ala (uč-ala 'saying', iIj-alu 'ruins'); Aw -el (uryˤ-el 'thought'); N Čeč -lla (ḫaza-lla 'beauty') etc.

7) HU *-(a)nə, -nu: H, U tiš-nu, tiš-nə 'heart', H tarm-anə 'spring, well' U tarm-ana/ə do., ebânə 'land', U burg-ana- 'Column(?)'. This may be tentatively compared with PEC *-(V)nV - a widely spread suffix of deverbal nouns (L Lz, Rt, Arč -n, Udi -un; Lk -n; N Bcb,Čeč,Ing -n - used in the different languages either as a suffix of abstract nouns, or as a regular masdar or infinitive suffix). Cf also PAA > Adygh, Kabardian -n 'masdar suffix'. In PEC there exists also a denominative suffix *-nV (cf. Tb rayI-in 'mill', Arč diç'-in 'yard' etc.). It is possible that here we have to deal with several original morphs, both in HU and in EC.

8) HU *-arə : H (h)ij-arə 'gold', awiḫ'-arə 'plough', U ḫar-arə 'peace'(?) etc. Perhaps shoud be compared with PEC *-rV: Aw -ro 'suffix of nomina instrumenti' (borĉĉ-aro 'drill', qquqqa-di-ro 'saw' etc.); N Čeč -r 'suffix of deverbal nouns' (ḫa'a-r 'knowledge' etc.); PL *-r id. (Lz aḫwa-r, Bd aḫu-r 'sleep, slumber' etc.).

9) HU *-(i)bə - originally probably a collective suffix, known from a few examples (U nir-(i)bə 'property', at-ibə '10.000', H (i)nu/o-bə 'very many, 10.000'). This can be perhaps compared with PEC *-p'V 'plural suffix' (L Rt -b-yr, -ba; Khn -b-Vr; Drg -bi; Cz Gnz -ba,-bur, Cezi -bi; Aw -bi, And Akhw -ba, Tnd -bi; N Bcb -bi). The suffix must have lost its productivity in HU and turned into a rare (even relic) word-formational morph.

Noun

The only significant difference in the declension paradigm between HU and EC lies in the fact that the EC languages, unlike HU, have no way of morphological expression of the so-called "pronominal determination" (i.e. meanings like "my", "your" etc. are in all EC languages expressed only by separate personal pronouns, while in HU they can be expressed by suffixed pronominal morphs). Practically all other elements of the HU nominal paradigm can be identified with similar EC morphs. We shall now proceed with the description of the general structure of the HU nominal declension in the light of EC data.

I. Position zero is occupied both in HU and all EC languages by the root (together with word-formational suffixes). Some nouns (rather few in number) in PEC could have prefixed gender marks, cf. Aw w-as 'son', j-as 'daughter' or Drg w-aIḫ 'face (of a man)', r-aIḫ 'face (of a woman)', b-aIḫ 'face (of an animal)' etc. Semantically these were only nouns denoting some kinship terms and some parts of the body, though earlier (in PC) this system may have been more productive. As we had already noted above, HU has no apparent traces of gender markers, just like some of the modern EC languages.

II. Position 1 in the HU nominal paradigm is occupied either by suffixed pronominal morphs (which EC lacks) or by the article HU *-n- (H Sg. -ne-, Pl. -na-, U -n-, -nə). Cf. H ewer-ne 'the lord', ewri-nna-(a)z̄-uš 'the lords' (Erg.), U lutu-nə 'the women' etc.

In EC languages there exists an opposition of the so-called 'direct' and 'oblique' nominal bases. Normally the 'direct'

(unmarked) base is used in the absolute case, and the 'oblique' base - in other (oblique and locative) cases. In modern EC languages there are numerous different markers of the oblique base, but it can also be unmarked (thus coinciding with the direct base). It is highly probable that in PEC (as a matter of fact, even later, since the same can be said, e.g., about Proto-Lezghian) the two bases had been opposed as 'definite' (marked) and 'indefinite' (unmarked). One of the best attested oblique base markers in EC is *-nV- (cf. L Udi meḫ 'sickle' - meḫ-n-aj 'of the sickle'; Lk kwa 'hand' - kwa-ni-l 'of the hand'; N Čeč boda 'darkness' - boda-n-an 'of the darkness' etc.), which can be thus safely compared with the HU article *-n-. A somewhat similar development seems to be observed in U plural nouns[27].

Unlike the modern EC languages, the HU article *-n- is not connected directly with the case system, i.e. it can perform its function also in the absolute case (in the plural forms the use of -n- is obligatory). Here we should mention that many EC languages (particularly Lezghian) do not have a special marker of the ergative case, and the opposition 'absolute' - 'ergative' is morphologically expressed as 'zero marker' - 'oblique base marker' (such must have been the situation in Proto-Lezghian and probably in some other EC subprotolanguages). This is obviously a late development (PEC surely possessed an ergative marker) due to a shift "definite absolute case ⟶(definite or indefinite) ergative case", easily explainable from the semantic point of view.

27) In PEC there are some other markers of the oblique base, as well. Whether they also originally served for the opposition 'definite'-'indefinite', is not as yet clear.

III. Position 2 is occupied both in HU and in EC by plural markers. The main plural marker in HU is *-aš- (H -až-; U -aš- preserved only in the plural directive -aš-tə and directive-ablative -aš-tanə cases). Cf. H en(i)-na-(a)ž-uš 'the gods' (Erg.), U DINGIR^{MEŠ}-aš-tə 'to the gods'. This is obviously the same as PEC *-š(V) 'plural suffix' (PN *-(a)š: Čeč deg-n-aš 'hearts', Ing jurt-aš 'villages', Bcb ça-r-ši 'fires'; L Rt duḫ-rä-šä 'sons' (Erg.), duḫ-rä-ši-s 'to the sons', Arč daĉ-š-ul 'doors'). Cf. Addendum 4.

In U finally there is a plural suffix of the absolute case -lə (cf. burgala-lə 'allies' etc.) which may be derived from HU *-lla 'pronominal copula pl.'. EC languages have no copula of that kind, but there exists a well represented PEC plural suffix *-l_1V: Drg -(qa)-li (with animated nouns); Lk -l in compound plural morphs -l-t, -ta-l, -qu-l; Cz Gnz,Bžt -la/-ul; And Akhw -la,-li, Andi -l; N Bcb -l- in the compound plural suffix -l-č etc. The HU and EC morphs may well be compared, no matter which of their functions (as a plural copula or as a plural suffix) we consider to be the original.

In PEC there had been some other plural (or, perhaps, collective) suffixes, among which the most important are *-rV, *-p'V and *-t'V. For the possible trace of *-p'V in HU see p.70 above; for *-rV and *-t'V we have not found safe parallels (cf., however, N°44 above, where U -tu 'a collective suffix' is discussed). Cf. also HU -ar-di 'collective suffix' (H naž-ardi 'concubines', U Šêl-ardi 'Moon-goddess', lit. 'moonlight'?).

IV. Position 3 is occupied both in HU and EC by case suffixes. In EC there exists a clear-cut division of cases into three types:

a) the absolute case (serving for subjects of intransitive action and objects of transitive action) which is unmarked (has a zero ending) in all EC languages. It can be directly compared with the HU absolute case, performing the same function, and also unmarked.

b) indirect (oblique) "abstract" cases which are the genitive, ergative (for subjects of transitive action), instrumental, dative and, in some languages, affective (for subjects of sensual perception verbs).

c) locative cases which usually have a compound morphological structure. They consist of the so called 'localization markers' (denoting the place above, under, inside the reference point etc.) + 'directive markers' (denoting the direction of motion or its absence). The latter are often materially the same as cases of the groups a) und b), i.e. either unmarked, or coinciding with simple indirect cases. Many of the locative cases in modern EC languages go back etymologically to adverbs of space, originally used as postpositions.

Very characteristic of the EC case system is the instability of the markers of indirect cases. Even in closely related languages we often meet a great formal discrepancy of case suffixes. Each individual occurrence of it must of course have its own concrete explanation, but the general answer is that the ergative system presupposes a basic two-way distinction of direct and indirect cases, while the indirect cases, often having similar functions and being neutralized in many syntactic constructions, are easily interchangeable. Therefore we can often safely reconstruct the PEC morphs phonetically, but make only guesses about their original meaning.

With all that in mind, we shall now proceed to etymologize HU case suffixes.

	HU	EC
1.	Absolute: -∅	-∅
2.	Ergative: *-s(ə)[a]	*s·V (ergative or instrumental)
3.	Genitive: *-we[b]	PAnd *-u (elative)
4.	Dative: *-wa[c]	*-w$_1$V (dative?)
5.	Directive (allative): *-da or *-ta	*-t·a or *-da (allative)[d]
6.	Ablative: *-n(ə)[e]	*-nV (ablative or genitive)
7.	Locative: *-a[f]	*-'V (locative - inessive)
8.	Comitative: *-ra[g]	*-ra (a conjunctive particle)
9.	Locative-illative(?): *-(a)č̣ə[h]	*-č̣V (locative-contactive)
10.	Prelative: *-k(·)a(i)[i]	*-kk·V (contactive)

Notes to the table:

a) The ergative case morph is -(u)š in H, -šə in U. The corresponding case in *-s·V in PEC had perhaps originally been ergative or instrumental. Its original function obtains in N, cf. N Čeč,Ing,Bcb -s 'ergative suffix (with animated nouns)'. In other languages it has changed its function, turning either into dative (cf. L Arč -s·, Lz -z, Rt -s; Drg -s) or genitive (cf. Cz Gnz, Bžt, Khš -s). The same morpheme is used in EC languages in a number of secondary functions: as an adjective suffix, as a suffix of the infinitive and future etc. Cf. also PAA: Abkh -ŝ, Abaza -s 'a transformative and adverbial suffix' (this probably confirms the reconstruction of an original instrumental meaning; the instrumental case is often used with a transformative sense, e.g. in Russian).

b) H -we U (archaic) -wə, (late) -(e)i (-wə preseved mostly in the gen.Pl. -na-wə). Cf. PAnd *-u (or *-wV) 'elative suffix': Akhw -u, Tnd -(w)o, Čml -ō et al. This suffix is used only as a directive marker (i.e. only in combination with localization markers, cf. Akhw beča-g-u)from the mountain', beča-ç̣ç̣-u 'from under the mountain' etc.), but this must be a secondary development. Outside Andian languages we do not know any reflexes of this morph (but cf. perhaps L Udi -h̬-o 'elative suffix', -h̬- being another old localization marker), which, of course, makes the comparison less reliable. Semantically there are no objections: the meanings of genitive and elative (ablative) are very close to each other (cf. German von).

c) H -wa, U *-wə > -(i)ə (-wə preserved in the dat.pl. -na-wə). The corresponding suffix *-w_1V in PEC must have been used for the dative case, cf. Khn -u 'dative suffix'; Andi -u 'infinitive (< *dative) suffix. In Nakh the suffix *-V-w serves either for the instrumental case (Bcb -V-w) or for the ergative (with unanimated nouns) (Čeč -ō, Ing -uo, Bcb -V-w; thus, in Bcb the unanimated nouns do not distinguish between instrumental and ergative). Cf. also PAA *-wə: Ubykh -w-nə 'suffix of the instrumental case', Adygh -w 'suffix of the transformative case'.

d) H -t/da, U *-tə (not in common use; preserved in the allat. pl. -aš-tə). Cf. PEC *-t'V 'allative suffix': L Lz, Ag -di id., Arč -t'a '(archaic) locative suffix'; And -di 'allative suffix (in the sing.)'; Cz Gnz -de-r, Bžt -dā 'allative suffix', Cz -de 'a locative suffix denoting a position near or a motion toward the object'.

There are phonetic troubles with this suffix (see p.25 above): PEC *-t'- should have yielded HU *-t'-. However,

a reconstruction *-dV is also possible for PEC, while for HU the reconstruction *-ta is based only on the badly attested U -tə (H -t/d- can go back both to *-t- and *-d-). Actually there exists in U a compound 'directive-ablative' case in -da-nə (= H -t/da-n 'suffix of the ablative-instrumental case'), which points to a voiced *-d- in PHU; -tə in U could be a result of unvoicing after -š-. In that case what we have here is a completely regular correspondence HU *-da: PEC *-dV.

Though in most Lezghian languages and in Andi this morph is a normal 'directive marker' (not used without preceding localization markers, cf. Lz lam-ra-w-di lit. 'towards near the donkey', lam-ra-q-di lit. 'towards behind the donkey', lam-ra-k-di lit. 'towards under the donkey etc.), this was probably not so in PEC. In some archaic Arči forms it is joined immediately to the base (cf. q̇arq̇i-t'a 'on the lawn' etc.), and in Cezian languages it is itself a regular 'localization marker' (i.e. used b e f o r e directive markers, cf. Cezi esju-de 'at (smb.'s) brother's', esju-de-r 'towards the brother', esju-de-j 'from the brother' etc.). The same situation obtains in HU, where the morph *-ta (*-da) can be followed by an ablative suffix *-nə (see below) to form the 'directive-ablative' case. This means that originally the PEC morph *t'V (*dV) must have been a declined spatial adverb (clitic), which is confirmed also by the AA data, PAA *dV (= PEC *t'V) being both an allative prefix and suffix.

e) H, U -nə 'suffix of the ablative-instrumental case' (often simply ablative, cf. U ^{D}h̬aldi-nə bedi-nə 'from the side of Haldi', inuka-nə esi-nə 'from this place' etc.). Cf. PEC *-nV 'genitive (or ablative?) suffix': L Lz, Ag, Tb, Arč -n 'genitive suffix'; Aw -an 'ablative suffix'; N Čeč, Ing, Bcb -n 'genitive suffix'. The function of this suffix has been in

some languages transferred to the dative (Lk) or the ergative (Udi); cf. also PAA > Ubykh -n,-na 'ergative suffix'. On the use of the same morph as an adjective marker and as a masdar/infinitive suffix (thus also as a suffix of abstract nouns) see above p.68,70,72.

f) H, U -a. This suffix does not cause an elision of the preceding (thematic) vowel, cf. H ewarnə ḫawurni-a 'the lord on the earth', U esi-a 'in (a) place' etc. This feature is easily explained historically, because the corresponding PEC suffix is *-'V (with a glottal stop): L Lz -a/-e, Ag, Tb -'; Cz Bžt -', Khš -ā; And Akhw -e, Andi -a etc. 'suffix of the locative (inessive) case'. In EC this is a 'localization marker' (cf. Tb aIraba-ji-' 'in a cart', aIraba-ji-'-an 'from (inside) a cart', aIraba-ji-'-na 'into a cart' etc.), but this function of *'V has been lost in HU (however see below under (h)), just as in some modern EC languages (cf. L Rt -a which is the suffix of the locative (inessive) case not followed by any directive markers).

g) H -ra (in U represented by the compound case-marker -ra-nə). Cf. the PEC conjunctive enclitic *-ra: L Ag, Tb -ra; Drg -ra. It is not a proper case ending (since it can be used after case suffixes and not necessarily with the noun only), but its meaning is often very close to the meaning of the comitative case. Cf. Tb ḫwp'a(r)-ra biçida(r)-ra 'women and children' = 'women together with children' etc. Cf. also PAA > Adygh, Kabardian -ra 'conjunctive particle' (with the same meaning).

h) U -aṣə (not represented in H). This may be a compound suffix (locative in -a + -ṣə; this, then, would be a trace of the usage of -a as a localization marker). In any case we must compare the morph with PEC *-ç̣V 'locative suffix'

(originally meaning something like 'near the reference point'): L Udi -ç̣ 'allative suffix' (beɣI-nu-ç̣ 'towards the sun'); Lk -ç̣a (q'atlu-ç̣a 'near the house', q'atlu-ç̣a-n lit. 'towards near the house' etc.); And Krt -ç̣o (h'elčon-i-ç̣o 'on the (surface of the) sabre' etc. In Laki and Andian languages it is a 'localization marker', but in Udi and HU it is rather a 'directive marker'; on the possibility of this kind of functional change cf. what has been said about the suffix *-t'V (*-dV) (p.77 above).

i) U -kai, -kâ (not attested in H, thus for PHU either *-k- or *-k'- may be alternatively reconstructed). This is a typical 'localization marker', cf. U Rusâḫi-na-kai 'before the (town) Rusâḫinele', šur-ja-ne-kai-nə 'from his weapon' (lit. 'from before his weapon'). Cf. PEC *-kk'V 'contactive suffix': L Ag, Tb -k (e.g. Tb cali-k 'on the surface of the wall', 'close to the wall', cali-k-an 'from the wall'; NB: Tb -k-an = U -kâ-nə), Arč -k 'allative suffix' (mul-li-ra-k 'towards the mountain'); And Akhw -g- (beča-g-e 'on the mountain', beča-g-u 'from the mountain'), Andi, Btl -k-u, Krt -g-al 'ablative suffixes' (only -u and -al are original ablative morphs, the whole combinations originally meaning 'from the vicinity of...'); N Čeč, Ing -ga (after consonants)/-a (after vowels) 'suffix of the locative case', Bcb -go: Bcb šu-go 'to(wards) you', šu-go-ḫ 'at yours'', šu-gu-iḫre 'from (the side of) you' etc. These examples clearly show that *-kk'V had originally been a 'localization marker' meaning something like 'close to the reference point', 'on the surface of the reference point' (and its functioning as a 'directive marker' in Arč, Btl, Krt and as a simple locative case in Čeč, Ing is obviously secondary). Like most of the localization markers, it must have formerly been a spatial

(clitic) adverb, which is confirmed by the preverbal use of its AA cognate *gwV-/*kwV- 'at the side of...', 'by the side of...'.

Only two HU case suffixes lack EC cognates: U -pei, -pê 'sublative suffix' and H. U -â 'stative suffix' (H urḫi 'right', urḫ-â 'according to the right'; U esi-a 'in the place', but pôr-â 'into the state of slave'. This morph differs from the locative suffix -a in that it causes an elision of the preceding vowel. Taking this into account, we could try to compare it with a rather obscure PEC morph, represented by Drg -a 'genitive suffix'; And Akhw -a, Andi -o 'directive suffix' (the same morph with preceding gender markers is used in Andian languages as a suffix of the affective case); Cz Gnz, Cezi -a 'infinitive suffix' et al. Whatever the original meaning of this suffix, it resembles the HU stative suffix in that it also causes an elision of the preceding vowel (unlike the PEC locative suffix *-'V). This comparison is, however, only provisional.

Numerals

Only a few HU numerals are known; see etymologies N°81 (HU *sV- < PEC cə(hə) 1), 77 (HU *šin: PN *ši 2), 150 (HU *qi-: PN *qo 3), 16 (HU *wa(H)er- < PEC *w₁eHerʒ̂ǯV 7), 109 (HU *-si in compounds < PEC *-ç̌y 10). The origin of H numerals tumni 4, eman 10 stays obscure; HU numerals for 5, 6, 8 and for numbers above 10 (except 30) are unknown; ni/e-z̄i 9 is formed from *-si (> -z̄i) 'ten' ('from ten').

Pronouns

I. Personal pronouns.

1 p. sing.: HU *(j)es-/*so-: H abs. iš-te, erg. iža-š, gen. šo-we, dat. šu-/o-wa(?), dir. šu/o-da; U abs. ješə, erg. ješə (< *ješ(ə)-šə), dat. *šo-u-kî > šôkî (a form from the pronominal declension?). Cf. PEC *'ez-/*zō-: L Arč dat. ez, abs. zo-n, Lz zu-n, Rt zy; Khn dat. as, abs. zä; N Čeč, Bcb erg. as (Ing az), abs. Čeč, Bcb, Ing so[28]. Cf. also PAA *sV 'I'.

In PEC the base *zō- was used originally in the absolute case, and the base *'ez in the ergative (transfer to dative in PL and Khn is obviously connected with the change PEC *-s·V 'ergative' > PL *-s· 'dative', see p.75 above). There are traces of other bases (*'iz- 'genitive', *za- 'oblique and locative cases'), but they seem to have been lost completely in most languages, including HU. In HU the absolute base *zō- was first extended to oblique cases (excluding ergative) - a development quite parallel to what happened in Nakh - and later the ergative base *'ez- was extended to the absolute case (in ergative languages personal pronouns often do not distinguish between the absolute and ergative cases).

The 1. p. pronominal enclitic H -iff-, U -u(ka)- (PHU *-(i)ww-) has no certain parallels in EC. Cf. perhaps Drg -ab- (< *-aw-) in the unique Drg paradigm of the 1 p. pronoun dat. n-ab, dir. n-ab-či, loc. n-ab-zib etc.? (PEC *ny

28) EC forms with d- (Drg gen. di-la, Aw du-n, Andi di-n, Cz Gnz də, Cezi di etc.) in all probability also go back to EC *zō-, though the development *z > *d is unique.

is another relic stem of the 1 p. pronoun, represented only in Lk abs. na, Drg. nu; it may be a trace of an archaic suppletive paradigm, not reflected in most EC languages and HU).

2 p. sing.: HU *we-: H erg. φe-š, gen. φe-we, dat. φe-wa (not attested in U). The same morph is used as a pronominal enclitic H -w, U -w(?) and in the verbal 2 p. sing. ending H -û/-ô, U -au. Cf. PEC *w̥V (vowel not certain, because it is often subject to an analogical change under the influence of *zō-): L Lz wu-n, Rt wy, Arč u-n; Khn wä; Lk gen./erg. wi-l, dat. wi-n; Cz Gnz mə (< *wə̃ < *wə-n); Aw mu-n (< *wu-n); And Akhw me-ne (< *we-ne) etc. Cf. also PAA *wV 'thou'.

The 1 p. and 2 p. plural pronouns are not attested in HU. The 3 p. pronouns should better be discussed together with demonstratives.

II. Demonstrative pronouns.

HU *-nV 'enclitical 3 p. pronoun': H -na/-ne, U -nə. The same morph is probably present in some compound demonstrative pronouns (H mannə 'a demonstrative pronoun', U manə '3 p. pronoun', H annə 'that', U i-nə 'this'); it should be etymologically kept apart from HU *-V-nnə 'suffix of relative adjectives' (p.68 above), though it may ultimately be the same morph as HU *-n- 'article', EC *-nV- 'oblique base marker' (pp.71-72 above). Cf. PEC *nV 'a demonstrative pronoun' (mostly in compounds): Cezi ne- 'that (far from the speaker)'; Andi ho-no-, he-ne- 'this', hi-ni-di- 'that' et al. Cf. also PAA > Abkh, Abaza nə- 'that (far from the speaker)'.

HU *a-: H a-(n)-di 'this (near to the speaker)', a-nnə 'that'. Cf. PEC *'a 'that': L Lz a, Krz ä-d, Bd a-d; Cz Gnz ə-, Inkh a- 'this, that'; And Bgl, Tnd, Čml a- 'this'. Cf. also PAA *a 'that'. The morph -di in H may be a reflex of another PEC demonstrative stem *dʕ/ȳ/ (: Aw do-, N Čeč dʕā- 'that' etc.; also PAA *dV 'that, there').

HU *ma-: H ma-nnə 'this', U ma-nə 'he'. Cf. PEC *mV 'a demonstrative pronoun': L Lz -m (in the demonstratives i-m, a-m etc.), Tb mu, Ag mi, Ckh ma-n (cf. HU *ma-nnə!) 'this'; Lk mu 'that (near to the listener)'; Cz -me- in he-me- 'that (far from the speaker)'. Cf. also PAA > Adygh, Kabardian mə- 'this'.

HU *i-: U i-nə 'this', i-ka- 'that, the same'. This root is not attested in H, but it may be etymologically identical with HU *j-, represented in H ja-, je- 'relative pronoun', U jei 'indefinite pronoun', and also the 3 p. enclitical possessive pronoun H -(i)jə, U -(i)jə. Cf. PEC *'i: L Lz i, Ckh i-n (cf. U i-nə!) 'this'; Drg i- 'this, that' (in the demonstratives i-t, i-l, i-s, i-ḳ, i-ḫ); Cz Inkh i-du 'this' j-u (erg. i-se) 'that'; N Bcb i 'he, she, it', Čeč i/i-ʒa 'this', Ing i-ʒ 'he, this'. Cf. also PAA *jV '3 p. pronoun'.

III. Interrogative pronouns.

The interrogative pronouns proper are not attested in HU, but some of the attested HU pronominal stems possibly reflect original interrogatives. Thus awa-š, U âšə 'a conjunction ('when..., if...')' probably goes back to the PEC interrogative stem *š·i (L Krz ši 'what', Udi šu 'who'; Lk gen./erg. š·i-l, dat. š·i-n 'who'; Aw š·i- 'who, what' etc.; Cf. also PAA > Abkh, Abaza -šə- 'how'), and H inu/o 'how, as' reflects another PEC pronominal interrogative stem *nV (Cz Gnz ni-jo 'where', Cezi ne-ti 'when'; And Gdb in- 'an interrogative

stem' (in in-daqqi 'when', in-ĉĉa 'why' etc.); PN *-n (in Čeč hu-n 'what', Bcb me-n 'who'). Cf. also PAA > Abkh, Abaza -an(ə)- 'when'.

IV. Other pronouns.

See N°82 (p.38) for the etymology of HU *suj- 'all, every'. For H ḫejaru 'every' cf. perhaps And Krt he-el 'every (with infixed gender markers: he-w-el, he-j-el, he-b-el); L Rt (dial.) hil-dy id. (possibly < PEC *hi'Vl$_1$V?; it is not clear whether N Čeč hor, Ing hara 'each, every' also belong here, because for these forms a recent loan from Persian is not excluded).

Verb

The verbal structure is extremely complicated both in HU and in modern EC languages. Though it is too early to speak of a satisfactory reconstruction of the PEC verbal system, some basic features of it are clear even now, and reveal striking parallels with HU. Particularly interesting in this respect is the verbal system of Central EC (Awaro-Ando-Cezian) which has many features in common with HU.

Let us first mention the principal differences between the EC and HU verb.

1) Most of the verbal forms in EC are provided with gender markers denoting grammatical agreement with the object (if the verb is transitive) or with the subject (if the verb is intransitive). These gender markers must be archaic (since at least part of them have cognates in AA), and can be prefixed (usually in finite forms), suffixed (usually in non-finite forms) or, sometimes, both. Cases of infixation are more rare and usually can be proved to be secondary. There

are, in fact, arguments in favour of the suggestion that originally gender markers could only be prefixed.

It's probable that the EC verb distinguished between an agreed conjugation (with gender markers) and a non-agreed one (without such), though the original functions of both have not yet been established (it was probably one of the means of expressing aspectual oppositions). Clear traces of this situation obtain in Drg and Awaro-Andian languages. Most of the EC languages show a clear tendency towards abolishing one of the conjugations, for the most part, the non-agreed, but sometimes the agreed one. The latter case has resulted in some Lezghian languages in a complete loss of gender agreement (e.g., in Agul there has been even no trace at all left of prefixed gender markers).

HU has lost the gender agreement, too (and in that it differs from most modern EC languages), and has developed personal agreement instead. The latter is certainly an innovation. The intransitive (stative) verb is in Hurrian still practically non-agreed (the personal morph not forming an inalienable part of the verbal form), and M.L. KHAČIKYAN has adduced evidence that also the transitive (fientive) verb was still non-agreed in what she calls the "Ugaritic I" dialect (attested in lexical lists). Some modern EC languages have personal agreement as well (e.g. Tabasaran), but this, too, is obviously a very late development.

2) Besides gender prefixes, one more kind of prefixed morphs exist in EC languages, viz. the locative preverbs. The preverbial system must have been productive at some stages of development of the EC languages or in certain old dialectal areas. At present it is really productive only in

Drg, Khn and Eastern Lezghian (Tb, Ag, to a lesser extent Lz). Most Lezghian languages (expecially Shahdagh), Laki, Cezian and Nakh have preserved only more or less abundant remains of the preverbial system, although, e.g., in Nakh some new productive preverbs have appeared recently. Judging from this one would be tempted to regard preverbs as a PEC feature. However, no preverbs at all exist in Awaro-Andian, and this must be regarded as a very important archaism, alongside with other important archaic features of this subgroup (one more language, Arči of the Lezghian group, has also no preverbs at all, but this must have been a secondary development under the influence of neighbouring Awaro-Andian languages). It can be clearly shown that most of the EC preverbs (whether they are productive or not) go back to spatial adverbs, which are also the source of most locative cases in the noun system (see above).

HU, like Awaro-Andian, has no preverbs, and this is to be regarded as a reflection of an archaic system, not as an innovation.

3) Among modern EC languages a productive verbal Ablaut system exists only in Dargwa, Tabasaran, Cakhur and Nakh. (In Nakh one should distinguish between the old Ablaut and the new Umlaut; the latter can be easily explained away, but the former still remains.) But nearly all the other languages have, somehow or other, preserved traces of a verbal Ablaut, which must be therefore considered as a proto-feature. Though the types and the functions of PEC Ablaut are not yet quite clear (it must have played a role in aspectual and, probably, some other oppositions), it is surely archaic and corresponds to the same feature in AA (the well known AA *a/*ə Ablaut).

HU has no clear cases of Ablaut, but it is possible it

does preserve some traces of it, cf. Addendum 1. The loss of Ablaut is most likely a HU innovation (it would be far more difficult to regard the EC and AA Ablaut as separate secondary developments).

There are, of course, other differences between the HU and EC verbal systems, which seem to be less significant. We shall dwell upon some of them below. Still, the similarities seem to prevail over the discrepancies.

I. Verbal finite forms.

The structure of the HU finite verb forms consists of 11 positions. Position 10 and 11 are occupied by markers of personal agreement and are probably secondary. Thus only positions 1-9 remain, and of these five (1,2,7,8,9) find close correspondences in EC, both in what concerns the order of positions and the morphs by which they are occupied. EC parallels for suffixes of positions 3-6 either are altogether absent or are rather questionable.

(1) Position zero in HU is occupied by the root. The same is true of EC (if we do not take into account the prefixal positions: one for the gender markers, and one for the 'predicative marker' *'V- (see p.9 above); the latter, however, may be also regarded as part of the root, or a purely phonetic insertion between the gender marker and the root).

(2) Position 1 (immediately after the root) is occupied by suffixes modifying the meaning of the root, more or less corresponding to Semitic stirpes (or "stems") and European voices (though, of course, no 'active-passive' opposition exists in ergative languages like HU and EC). The same system we find in Central EC, and some of the suffixes can be shown to be materially identical.

HU *-ar- 'factitive (causative) suffix' (H, U -ar-). Cf. PC *-l-: Gnz, Bzt -l-, Cezi -r-; PA *-ol-: Andi -ol-, Gdb, Bgl, Tnd, Cml -al- 'causative suffix'. The morph must be reconstructed as PEC *-Vl$_1$- or *-Vl$_1$h-, but it is not preserved outside the Cezian and Andian area (in other EC languages the sense of the causative is either expressed by auxiliary verbs, or some obviously new suffixes have been developed). On the correspondence HU *-r-: EC *-l$_1$- see p.55 above.

HU *-u/ol- 'reflexive (or medial?) suffix': H, U -u/ol-. This suffix can be perhaps be compared with Cz *-ẑ- (Bžt, Khš, Cezi -ŝ-, Gnz -l-), Aw -ŝ-, Andi -ŝ- etc. This suffix is used for the most part to form verbs from adjectives and nouns ('red' - 'become red' etc.), but when used after a verbal root, it denotes possibility or state (cf. Khš ih̬-a 'to go' - ih̬e-ŝ-a 'to be able to go', 'to be in a state to go'). The Eastern EC languages (Dargwa-Lezghian) have not preserved this suffix, but in the Nakh languages there exists an analogous suffix *-l- (cf. Bcb -až- 'to graze' - -až-l- 'to be able to graze'), and a PEC suffix *-ŝ- can be safely reconstructed.

HU *-Vš- (H -Vž-; U -š-?)[29] 'intensive or iterative suffix' (in U possibly factitive, cf. ḫarḫar-š- 'to destroy' along with the stative ḫarḫar- 'being destroyed') can be compared with an analogous suffix -š·- in Andi (used after a reduplicated root, cf. qqel- 'to scratch' - qqelqqe-š·- 'to scratch repeatedly' etc.).

The HU inchoative(?) suffix *-ug- (H -ug-, usually in -ug-ar- etc. in a reciprocal sense, U -ug/j-, -ig/j-) resembles phonetically PC *-k̬- 'causative or factitive suffix' (Cezi

29) U ḫar-ḫar-š- probably < *ḫar-ḫar-Vš- after -r-.

-ik̬-, Gnz -(e)k̬, Bžt, Khš -k̬-), but the semantical difference is still to be explained.

There are no EC parallels to the HU causative suffix -an/m- (but cf. perhaps a vacillation -n/-Ø at the end of some PEC verbal roots, which may indicate that -n had once been a grammatical suffix?). Some other suffixes of the 1st position (like H -ill-, -iz-, -(u)b-, -Vɣ-) are semantically obscure, and hence not suitable for comparison.

(3) Position 2 is occupied in HU, as well as in (Central) EC, by aspect suffixes. They often develop a secondary temporal sense, which nearly in all cases can be proved to be late.

The aspects in HU are as follows:

a) the perfective aspect, marked in H by the suffix -u/ož- < *-u/os- (not attested in U). Cf. PC *-s- 'suffix of the past tense' (Cezi -s(i)-, Gnkh -iš/-as/-es). This suffix is also attested in Drg (Drg -ši 'suffix of the "permissible" past tense, e.g. w-ak̬i-ši 'he must have come', b-ahi-ši 'he probably knew' etc.), thus pointing to a PEC *-š·V-. The Drg material clearly shows that this morph had originally not a temporal, but an aspectual semantic, since etymologically the same suffix is used to denote also the "permissible" future tense (e.g. w-ak̬i-š-a 'I will (probably) come' etc.). Other EC languages have not preserved the morph.

b) the neutral aspect, unmarked (in U this is the 'narrative' form of the verb, used in an aoristic sense). The unmarked form with a neutral (mostly presential) meaning exists in most EC languages, but note that the neutral unmarked form has usually the aoristic sense in Andian languages.

c) the imperfective aspect, marked by HU *-ed- (H, U -ed-). This is, of course, the same morph as PEC *-d- (attested only in Central EC) 'suffix of the imperfective (durative) aspect': C Gnz, Bžt -d- id.; Aw -d- id.; And Gdb, Andi -id-, Krt -(i)d- etc. 'suffix of the general present tense'.

(4) The HU suffixes in positions 3-6 have no apparent EC cognates. Position 3 is occupied in H by a suffixed -t- pointing out that the verb, whether transitive or intransitive, has no distinctly expressed object.

There is in Aw (and in some Andian languages) a suffix -d- with a similar function (it is frequentative, but also deprives the verb of its object, e.g. Aw ḫaḫ-ize 'to such' (trans.) ḫaḫ-d-eze 'to suck, be a suckling (intrans.)'). The problem is that it occupies another position, namely, a position b e f o r e the aspect suffixes (thus corresponding to the HU position 1). Therefore the comparison is not quite reliable, though change of position is attested in HU for some other morphs (e.g. for the plural action morph -ito-).

Position 4 is occupied in H und U by several morphs with obscure meaning. Only the meaning of U -št- (probably marker of completed action) is sufficiently clear, but no EC parallels can be proposed for it.

Position 5 is occupied by the marker of plural action HU *-ito (H -ido-, U -ito-; the U morph is used only in imperative, otherwise it has become an element of the person/number agreement system and has changed its position). There are no EC cognates (the plural action being probably denoted by Ablaut in PEC).

In the position 6 of the HU verb stand the markers of transitivity (HU *-i-/*-u-) or intransitivity (HU *-u-/-o- or

-a-). Analogous vocalic transitivity/intransitivity markers exist in Nakh (cf. Čeč ḫärca < *ḫarc-i '(it) is being overturned', ḫorcu < *ḫarc-u '(he) turns (smth.) over' etc.), but they seem to be secondary (being probably developed out of stem-final vowels having originally nothing to do with transitivity). Besides, they occupy another position in the verbal form and can hardly be identified materially with the HU morphs. It is not clear whether the transitivity/intransitivity markers are archaic or innovative in HU.

(5) The 7th position is occupied in H by the negative suffixes -wa- (in the irreal moods) or -k'- (in participles). Both markers are not attested in U. Other means of negation will be discussed below.

H -wa- seems to be attested also in the indicative mood, and earlier must have been used more extensively (being later ousted by the independent negative particles). It probably corresponds to the PEC negation suffix *ʕ(w), represented in Cezian (cf. Bžt -a'-/-e'-) and Andian (cf. Tnd -ih-, Čml -ī-), probably also in Khn (Khn -(j)i-). This suffix occupies the same position, and can also be used before suffixes of conditional moods (cf. Tnd beĉ̣ĉ-ihi 'he does not plough', beĉ̣ĉ-ihi-ŝuwa 'if he will not plough' etc.).

H -k'- 'negative suffix in participles' can be compared with PEC *-(k)k'- 'negative suffix' (represented only in Awaro-Andian), cf. Aw -ge 'prohibitive suffix' (Aw ç̣alu-ge 'don't write', qqwa-ge 'don't touch' etc.), And Akhw -ki 'negative suffix' (že-ki '(I) don't read', q̇ē-ki '(I) don't eat'). In Akhw the same suffix is used in negative participles (mači-k-a- 'not speaking', biži-k-a- 'not roasting' etc.).

(6) The 8th and 9th positions are occupied in HU by suffixes of irreal moods. Here also the Central EC languages (in this case Andian) reveal the most striking parallels to HU, although some other languages also have traces of the older system.

HU *-l(l)- 'suffix of the optative mood' (pos.8): H -l(l)-, U -l- (cf. H ḫaž-i-l-i/e 'I should hear', 'let me hear' etc.). Cf. PEC *-ŝ- 'suffix of the conditional or subjunctive mood': And Gdb ĩha-ŝa-ra 'if he makes', Akhw beḫa-ŝa-la 'should he take, if only he takes' (in Tnd the suffix -ŝ- is only preserved within a compound suffix of the irreal conditional -ŝ-uwa-, see below); L Rt -x- 'suffix of the subjunctive mood' (saty-x-nä 'if he left'); N Bcb -l- (ḫaça-l 'let (me, him) hear'; NB = H ḫažili/e) etc.

HU *-ewa- 'suffix of the conditional mood' (pos.9): H -ewa-, U -eja- (H φaž-ewa 'if (a mutiny) is brought about' etc.). Cf. PAnd *-awa- (or *-owo-) id.: Tnd beçç-awa 'if he ploughs', Gdb ĩh-awa-ra 'should he make', etc.

Both suffixes can be combined in HU to form a compound suffix of the 'conditional optative' (H -l-ewa-, U -l-eja-), cf. H kadi-lewa 'should (one) say', 'if (one) should say' etc. It finds a precise parallel in Tindi (Andian group) -ŝ-uwa- 'suffix of the irreal conditional', cf. Tnd beçça-ŝ-uwa 'if (he) would plough' etc.

Another mood suffix, HU *-aj- (H -ae-, U -â-), marking the debitive-final mood, seems to have no correspondences in EC (but cf. perhaps PL *-aj 'imperative suffix' (usually plural)?).

The imperative is unmarked in HU, just as in most EC languages, and probably also in PEC.

Let us now sum up the verbal morphological parallels between HU and EC:

Position	HU	EC
0	(root)	(root with prefixed gender markers)
1	(stem modifiers)	
	*-ar- factitive (causative)	*-l_1- causative (AwAndCez)
	*-u/ol- reflexive, medial	*-ŝ- stative
	*-(u)g- inchoative(?)	? PC *-k- factitive (causative)
	*-Vš- intensive	Andi -š'- intensive
2	(aspects)	
	*-u/os- perfective	*-š'- id.? (> Cz past tense)
	*-ed- imperfective	*-d- imperfective (AwAndCez)
3-6	(no certain correspondences; but cf. Pos.4 HU -t-, Pos.1 Central EC -d- marker of absent object; Pos.6 cf. Verbal noun).	
7	(negation)	
	*-wa-	*-ʕ(w)-
	*-k'-	*-(k)k'- (AwAnd)
8	(moods of group I)	
	*-l- optative	*-ŝ- conditional or subjunctive
9	(moods of group II)	
	*-ewa- conditional	PAnd *-awa- (-owo-) conditional

II. Negation

Besides the above mentioned morphs *-wa- and *-k'-, included into the structure of the finite (or participial) verb

form, HU also possessed other means of negation. There is a negative particle *uja (H uja 'no' as a separate negation, U ujə 'not'). It probably goes back to *u'a and is onomatopoetic in origin. Cf. analogous particles in various EC languages: L Lz, Tb wa', Lk u'u, Drg aḥe(n) etc. (probably Common EC, but the initial form is hard to reconstruct).

Another HU negative morph is the clitic *mV: H -ma 'a negative enclitic', U mi 'negative (prohibitive) proclitic' (in the optative). Cf. PEC *ma 'a prohibitive and negative particle' (usually proclitical, but may also be enclitical): L Lz -mi-r, Rt m-, Ag,Tb m(a)- 'prohibitive affix', Udi ma 'prohibitive proclitic'; Cz Gnkh -m/-me 'prohibitive and negative particle'; Lk ma 'prohibitive particle'; N Čeč,Bcb, Ing ma 'prohibitive proclitics'. Cf. also PAA *mV 'a negative and prohibitive suffix'.

PEC had also some other negative particles (PEC *ć'ə/ç̣ə and *d(w)V), which are not reflected in HU.

III. Verbal noun

Most HU participles have no special participial suffixes; the endings -a, -u/o and -i are properly transitivity/intransitivity markers. Although these markers have no obvious cognates in EC (see above), we should mention that the general structure of EC participles coincides with that of HU in that most participles are not distinguished formally from finite verbal forms (suffixed gender markers in the participles of many EC languages are evidently late, going back to an inflected copula).

In U, however, there is a resultative (perfective) participle with the suffix -rə (ag-u-rə 'having led', man-o-rə 'having been', šid-a-ju/o-rə 'built' etc.). This can be compared with PEC *-r(i): Aw -ra- 'suffix of the past participle' (çç̣ala-ra- 'the (one) who read', b-uḳa-ra- 'the (one) who was' etc.), Cz Gnz -ru id. (-uhu-ru 'the (one) who died), Cezi -ru (-äç̣-ru 'the (one) who has eaten') etc. The same suffix is very extensively used in all EC languages as a tense/aspect suffix, but its original function is not yet quite clear.

The HU suffix *-š'i-, originally used as an adverbial modifier (cf. H šir-a-š'e 'fitting (adv. or subord. clause)', U bid-uj-a(r-o)-šə 'returning, on the way back' etc.) is probably the same as PEC *-š'w/i/ 'a gerund suffix': L Arč -ši (ar-ši 'doing'; in other L languages it is conditional: T herḫi-š 'if (they) ask' etc.), N Čeč -š (b-oḫu-š 'saying') etc. In some Cezian languages the same morph has become a present tense suffix (a rather usual development), cf. Inkh -še (kera-še '(he) plays etc.).

Finally there is the H suffix -umme denoting nomina actionis or infinitives (tad-ug-ar-umme 'to begin loving' itt-ummi 'departure' etc.). It can be compared with PN *-m 'suffix of nomina actionis' (cf. Čeč ḫa'a 'to know' - ḫa'a-m 'information, report', b-āḫa 'to live' - bāḫa-m 'living, house-keeping' etc.).

Auxiliary words

Some of the HU auxiliary words (adverbs, negative particles etc.) have already been dealt with above. Here we shall only dwell upon two particles (conjunctions) which are characteristic both for HU and EC:

1) H enclitic conjunction -n 'and' (Kelija-n Mane-nn-an '(It) is Kelia and Mane'). Though it may be originally the same morph as the copula -n(na), it can be safely compared with the PEC conjunction *-nV (L Lz -ni, Rt,Ag,Tb -na, Cz Gnz

-n(o), Bžt -na, Cezi -n(o), N Čeč -n) with the same meaning and usage.

2) U emphatic particle kui/e 'even, also'. Cf. PEC *kk'Vj 'emphatic particle' (L Ag -kej 'even', Rt -ki 'and, also, though', Lk -ča < *-ka 'even', Aw -go, Andi -gu 'an emphatic particle' etc.). Cf. also AA: Abkh -ĝə 'an emphatic particle' et al.

V. Conclusion

We hope to have shown in this paper a close affinity between Hurro-Urartian and the reconstructed Proto-Eastern Caucasian. In fact, it is possible to speak of HU as of one of the branches of EC. This seems to contradict the lexicostatistical dating of PEC (circa 3d millennium B.C. according to E.A. BOKAREV), but the glottochronological datings for such distant epochs can only be regarded as very approximate, and the real date of the divergence should be probably moved back to at least the 4th millennium B.C., in order to allow for the extensive changes (mainly phonetic) that occurred in HU. It should be, however, kept in mind that phonetic changes can be very rapid during a close contact with typologically differing languages (which was of course the case with HU in Asia Minor). Note that those EC languages which were for a long time in close contact with non-Caucasian languages (e.g. Lezghi - with Azerbaijani or Udi - with Armenian) have always a much more meagre phonetic system than their mountain-dwelling relatives.

One of the authors of the present paper (DIAKONOFF) has suggested that the EC family should in the future be termed 'Alarodian', (1) to avoid such terms as 'Eastern Caucasian', (2) to include the HU branch, which can in no way be termed 'Eastern Caucasian'. 'Alarodii' is, of course, Herodotus' name for 'Urartians' (just as 'Matiēni' is his name for the Hurrians), but the term is not in scholarly use and thus is free for coining a new term. The term 'Matiēnian' is less favourable because of its connections with Mittanni and possible Indo-Iranian connotations.

An indirect proof of HU belonging to the EC (or 'Alarodian') family is that it has no special isoglosses with AA - the other family of the Caucasian phylum (there is, of course, a considerable number of HU-AA cognate lexical items, but in a vast majority of cases these are independent reflexes of PC roots, represented also in other EC languages). We can quote only quite a few roots which seem to be represented in HU and AA, but not in EC:

1) H maz-eri 'helper, ally'. Cf AA > Abkh a-maƛ 'help, service', a-maƛ-u-ra 'to serve, service'.

2) H -pakku/o 'stone(?)'. Cf. AA > Abkh a-baḫw, Abaza bqwə 'rock, cliff'.

3) U aše 'shield'. Cf. AA > Adygh āśwa, Kabardian āfa 'coat of mail' (Proto-Circassian *āswa).

4) U pâtari 'town'. Cf. perhaps Abkh a-ptra 'farm, village'.

These words can, of course, be regarded as HU-AA isoglosses (some isoglosses of that kind are known also for other branches of EC), but they may as well turn out to be loan-words from the poorly recorded Hattic language which in all probability was directly related to AA. A certain loan-word

from Hattic is H habalgi 'iron' (Hattic hap/walki = PAA *ʕIwə-ĉ̣wV 'iron' > Ubykh wəc̣wa, Adygh ɣwəč̣ə, Kabardian ɣwəṣ̌).

One of the authors of this paper had written in 1971: "...obwohl eine Verwandtschaft zwischen dem Hurrisch-Urartäischen und dem Nordostkaukasischen (Nachisch-Dagestanischen) gewiss noch nicht als bewiesen gelten kann, ist sie doch nicht unwahrscheinlich, und weitere Forschungen in dieser Richtung wären wünschenswert. Wenn aber die beiden Sprachgruppen wirklich zu einer Sprachfamilie gehören sollten (die z.B. die "Ostkaukasische" genannt werden könnte), so kann die Verwandtschaft nicht näher sein als z.B. die zwischen dem phonetisch transkribierten modernen Französischen (so daß wir an das Latein nicht erinnert werden) und dem Sanskrit, oder zwischen den modernen kuschitischen Sprachen und dem Altsemitischen. Verwandtschaftsverhältnisse wie die zwischen den alten Schriftsprachen der indoeuropäischen Sprachfamilie sind nicht zu erwarten." (I.M. DIAKONOFF, Hurrisch und Urartäisch, München 1971 [= MSS, Beiheft 6], S.170). At present we think that the relationship between HU and EC can be regarded as proved; and it seems probable that the relationship between Proto-Hurro-Urartian and other proto-languages of the EC family was most likely of the same kind as the relationship between old written languages of the Indo-European family.

Addendum 1

Perhaps, after all, there are some traces of Ablaut in HU. Thus H tan- 'to do' has in the text of the Ras-Shamra vocabulary the variant tin-. Cf. also H pala U pîlə 'canal (No 1), H tiɣ- (No 53), HU *ḫešm- : PEC *ḥ/o/ǯ̌ǯ̌Vn- (No 65), HU *seh-/*soh- (?) (No 74), HU *ker- : PEC *k'ərV 'bowl' (No 135) etc.

Addendum 2

A trace of the gender markers may perhaps be found in φi-têqi, φu-tki/φutk/hi?/, No 17, and in a few other HU words.

Addendum 3

U burg-ana means 'pillar, column', not 'tower' as assumed earlier, hence the comparison (N°7) cannot be upheld. Another possible PEC cognate could be *bərqqV (or *bərqqV-nV) 'pole, post', cf. N Ing beqa, And Akhw muqqe, Aw moqq, L Tb marɣ etc. Cf. also PAA bəqV-w 'post, pillar'.

Addendum 4

U -a- 'plural suffix' (only in indirect cases) may be compared with another PEC plural suffix, i.e. -a (L Rt -a, cf. ɣIyr-a 'hares': And Akhw šar-a 'foxes': Cz Gnz ǒg-a 'axes' etc.).

Addendum 5

A.Yu. Militarev (to whom the authors are grateful for having read our manuscript) suggested a Semitic origin for three HU vocables ($N^{o}3$, $N^{o}4$, and $N^{o}39$) which are perhaps more plausible than the etymologies proposed above (all of which are semantically rather dubious). It is true that none of the three belong to cultural words which more often tend to be borrowed.

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